

www.cropwatch.org



THE FIRST TRULY INDEPENDENT WATCHDOG FOR THOSE
WORKING WITH NATURAL AROMATIC MATERIALS

E: info@cropwatch.org T: ++44 (0)7771 872 521

Some Brief Musings on Ylang-ylang Oils.

Compiled from various Cropwatch sources.

Ylang-ylang Extracts from *Cropwatch Newsletter 13 (Sept. 2008)*.

– Excerpt from “IFRA’s 43rd QRA-based Amendment extends restrictions on natural aromatic product usage”.

.....the 8 New IFRA QRA-based Standards include Ylang ylang extracts. ('extracts'? does this term include distillates? – everyone we know is confused) are given a botanical name easily confused with cananga oil. [Note to IFRA staff: ylang ylang qualities are derived from *Cananga odorata* (DC) Hook f et Thoms **subsp. *genuine***]. Toxicologists have been gunning for ylang ylang oil for a long time; Frosch *et al.* (2002) in a study organised to find additional sensitizers to the fragrance mix in 6 dermatological centres in Europe, found 2.6% of subjects (drawn from 11.4% of subjects reacting most frequently to the fragrance mix) reacted to ylang ylang oil – the highest level of reaction after the fragrance mix itself. No clear identification of the sensitisers present in ylang ylang oil has been satisfactorily made – although adverse reactions has been put at the door of isoeugenol & maybe dihydro-isoeugenol (White *et al.* 2007). Cropwatch’s money however is on the content of the (GC-unstable) potent sensitiser coniferyl benzoate, and who’s removal, we believe, has previously led to the production & marketing of hypo-allergic ylang ylang oil.

References:

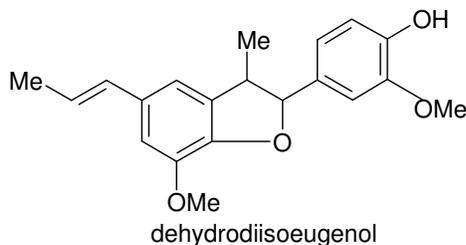
Frosch P.J., Johansen JD, Menné T, Pirker C., Rastogi S.C., Andersen K..E, Bruze M., Goossens A., Lepoittevin J.P. & White IR. (2002) "Further important sensitizers in patients sensitive to fragrances." *Contact Dermatitis* **47**(5), 279-87.

White I.R., Johansen D, Giménez Arnau E., Lepoittevin J.-P., Rastogi S., Bruze M., Andersen K.E., Frosch P.J., Goossens A. & Menné T. (2007) "Isoeugenol is an important contact allergen: can it be safely replaced with isoeugenyl acetate?" *Contact Dermatitis* **41**(5), 272-275.

More on Ylang-ylang oil (from *Cropwatch Newsletter 14 (Jan 2009)*).

Daniel Joulain pulled Cropwatch up on a roundabout claim that we made in the last Cropwatch Newsletter (Sept 2008) to the effect that the elimination of coniferyl benzoate was connected with a process for the production of hypoallergic ylang ylang oil. Joulain points out that coniferyl benzoate is not a known constituent of authentic ylang ylang oil, but that it is rather a component of

jasmine grandiflorum absolute qualities. Joulain further points out that Watanabe et al. (1985) previously identified dehydrodiisoeugenol as a potent sensitiser in ylang ylang oil.



However what I had partially remembered, was probably a patent which Joulain identified as being taken out by Takasago and Shiseido in the 1980's, to remove coniferyl benzoate from both jasmine & ylang ylang qualities. Joulain hypothesises that the presence of coniferyl benzoate may arise from the practice of adding Benzoin Sumatra tears (with a high coniferyl benzoate content) as an adulterant to Egyptian & Indian jasmine concretes, for an anti-oxidant effect and to impart a brilliance to the product. Similarities with jasmine processing at Grasse were alluded to by Joulain, since Sumatra benzoin was used as an additive in the "corps préparé" (pig lard and beef suet) for the enfleurage processing of jasmine in Grasse, as noted by Naves/Mazuyer (Reinhold Pub. Co., 1947). As a final note, Joulain confides that he has detected coniferyl ethyl ether in traces from jasmine flowers which doesn't eliminate his hypothesis above. Thanks to Daniel Joulain for sharing his scholarship and intimate knowledge of these materials with us.

Up to now, detailed information on ylang ylang commodities has been difficult to obtain. The author previously reviewed the boxed & outsized 16-page book *L'Ylang ylang: Un Parfum Subtil* by Christian Brulé & William Pécout pub. by V.F. Aromatique et Arco-Charabot (undated, believed to be pub. around 1994) which is probably a collectors item by now. I had the privilege of meeting Christian Brulé in Paris in 1994, and he was kind enough to duplicate some slides for me from his collection, for a presentation I was giving on essential oils to the British Society of Perfumers (subsequently written up by Liz Jones in SPC 1/6/1994). His intimate knowledge of distillation in Madagascar & the Comoros, I distinctly remember, and surpassed anything I had previously encountered. Returning to the present, I haven't seen what I would consider an authentic sample of ylang ylang oil from a named geographic source for years (this is a pity: I appreciate the odour qualities of pure 'ylang oils particularly from Mayotte). All samples I seem to encounter are (so obviously) adulterated. A feature by Pierre-Jean Hellivan of Charabot (Hallivan 2008) might go some way to explaining why. Hellivan describes a process where 3 Comoros ylang ylang traders went out of business in the recent past, and in the resulting market mayhem caused by opportunist traders, a rumour went around the Comoros Islands that heating ylang ylang III increases the density to resemble that of ylang ylang extra, thus making a large profit, well, on paper, anyway. Hellivan goes on to describe how this adulteration took hold in the area, to the extent that the reputation of the

industry is potentially shot, there is a shortage of ylang ylang III, and good quality Ylang ylang extra is in short supply. Although this isn't exactly the sort of adulteration I had in mind, let's go on with the story! Hellivan goes on to relate how Yannick Lannu, Charabot's technical & sourcing manager is acting to help re-establish standards within the network of collectors & traders in Anjouan, and who then proceeds on to Grand Commore. Mention is also made of Laure Jacquet of Charabot, who works to blend pure lots from the six different origins (Anjouan, Grand Comore, Mohela, Mayotte, Nosy-bé & Ambanja) to a consistent quality and works at formulating natural & commercial grades. Ah! It must be these I keep smelling!

Just kidding.

References:

Hellivan J.-P. (2008) "Natural Stories: Ylang-ylang." *Perf & Flav.* **33** (Dec 2008), 47-51.

Watanabe, Susumu *et al.* (1985) "Contact hypersensitivity to ylang ylang oil components (II)" *Nippon Koshohin Kagakkaishi* (1985), **9**(2), 92-100.