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SUBJECT: 1. Contact sensitivity to Tulipa and Alstroemeria.  
2. Chemical extractives of plants.

The sensitivity to tulip and to Alstroemeria in the same individuals reported by Rook (9) and Cronin (8) is probably due to the fact that these plants yield  $\alpha$ -methylene- $\gamma$ -butyrolactone (1) which is the allergenic compound of Tulipa. Caution however should be used to making such deductions because a compound which is derived from a plant by extraction does not necessarily coincide with the compound which is actually present in a given plant. Virtanen (1964) and co-workers gave several examples of this point in respect to compounds derived from onion and garlic, Allium.

Thymoquinol is present in nearly all of the following plants \* and has usually been isolated by steam-distillation during which it is partly oxidised to thymoquinone (3). In many cases, thymoquinone may be an artefact rather than a true natural product (3) although thymoquinone exists as such in the heartwood of the incense cedar, Heyderia decurrens (= Libocedrus decurrens), (4).

\* Carum, Seseli (Umbelliferae): Monarda, Nepeta (Labiatae): Nigella (Ranunculaceae): Eupatorium (Compositae): Tetraclinis, Juniperus (Coniferae): for species names and detailed plant source see (3).

It remains to be seen whether patients contact sensitive to thymoquinone such as those described by Calnan (5), Bleumink et al (6) would actually be contact sensitive to these plants, applied as is.

Several other types of artefactual compounds could be cited as examples. However when compounds such as allyl isothiocyanate are released from bruised tissues of cruciferous plants by an enzyme present in the plant then it seems reasonable to consider such compounds as 'naturally occurring' in a broad sense.

It will be interesting to find out if the seeds of Nigella sativa (which yield thymoquinone) have irritant and sensitizing capacity (as has thymoquinone) because according to ancient Arabian medicine, the seeds of this plant were the ultimate therapeutic agent. "In the black seed [of this plant] is the medicine for everything but death." (7) Perhaps the compound has anti-tumour properties.

- 1 Slob A (1973). *Phytochemistry* 12:811.
- 2 Virtanen A I (1964). Report on primary plant substances and decomposition reactions in crushed plants, exemplified mainly by studies on organic sulphur compounds in vegetables and fodder plants. A collection of papers by 13 authors. ed. Virtanen A I. Helsinki. Biochemical Institute.
- 3 Thomson R H (1971). Naturally occurring quinones. London. Academic Press. p. 98.
- 4 Zavarin E and Anderson A B (1955). *J. Org. Chem.* 20:82.
- 5 Calnan C D (1972). *Trans. St. John's Hosp. Derm. Soc.* 58:43.
- 6 Bleumink E, et al (1973). *Br. J. Derm.* 88:499.
- 7 Levey M and Al-Khaledy N (1967). *The Medical Formularv of Al-Samarquandi and the relation of early Arabic simples to those found in the indigenous medicine of the Near East and India.* Philadelphia. University of Pennsylvania Press.
- 8 Cronin E (1972). *ICNL* 11:286.
- 9 Rook A (1970). *ICNL* 7:166.