Phytochemists Aren't Perfect—But Almost

Janzen[1] has expressed an opinion that phytochemists and others reporting on the isolation of secondary chemical compounds from plants often fail to indicate the specific plant part from which the compounds originate. This omission appears to be hindering biologists interested in relating plant and animal biology, more specifically, herbivore-eating habits.

We have been computerizing the world literature on natural products since before 1975 in a system referred to as NAPRALERT. We include the specific plant part(s) from which chemical compounds are isolated and/or identified (including percentage yields when they are stated or can be calculated). It was thought to be of interest to query the computer to determine all publications that have been computerized since 1975 in which the authors failed to specify the plant part from which compounds were isolated. We did not determine the total number of papers involved; but from experience, it can be presumed that about 50% of the papers we computerize involve the isolation and/or identification of secondary principles from plants. For purposes of determining this information, we considered all gymnosperms, angiosperms, pteridophytes, bryophytes, and lichens to constitute "plants." The results are presented in the accompanying table. None of the "organless" reports appeared in *J. Pharm. Sci.*

In 1975–1978, the 73 papers in which plant parts were not indicated when results of isolation studies were reported were derived from a total estimated number of papers published on this subject of about 5000. Since about one-third of the data in the 73 "organless" papers was computerized from abstracts rather than from original manuscripts, it cannot be said with certainty that those original reports failed to include the plant part(s).

Unless Janzen has found a source of phytochemical papers that has eluded us, he does not have much of a case relative to the aforementioned criticism.

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[1] D. H. Janzen, *J. Pharm. Sci.*, 68 (1), VIII (1979).

Numbers of Publications Reporting Isolation of Secondary Constituents from Plants in which the Plant Part Studied Was Not Reported (1975–1978)

Country	Year of Publication			
	1975	1976	1977	1978[a]
Bangladesh	0	0	1	0
Brazil	0	1	0	0
Bulgaria	0	0	1	0
China (People's Republic)	0	0	2	0
Czechoslovakia	0	1	1	0
England	0	1	1	0
Finland	0	0	1	0
France	1	1	2	1
Germany (West)	1	3	2	1
Hungary	0	0	2	0
India	1	2	0	1
Japan	2	1	4	0
Nigeria	0	2	0	0
Pakistan	0	0	0	1
Philippines	0	1	0	0
Poland	0	1	0	0
Sweden	0	0	1	0
Taiwan	1	0	0	0
Republic of South Africa	0	0	1	0
United States	1	6	3	0
Russia	10	8	2	0
Total	17	28	24	4

[a] Incomplete for 1978.