# Letters

## Herbicides in Vietnam

The report by Rose and Rose, "Chemical spraying as reported by refugees from South Vietnam" (25 Aug. 1972, p. 710) requires some pointed comment.

Adequate documentation of the adverse effects of defoliants on plants exists; the long- and short-term human effects are less well documented. The anecdotal data accumulated by questionnaire from 98 South Vietnamese evacuees should not be used as evidence demonstrating the health effects of the defoliants. My experience in trying to collect historical information on neurological diseases in Thailand from those who may have had symptoms suggestive of these diseases has convinced me that this kind of data is often unreliable and is based on poorly recalled facts; the respondents will often tell you what they think you want to hear.

I am skeptical about the diagnosis of the women with "acute asthenia (fatigue)" whom the authors tell us had a "clinical picture . . . compatible with the peripheral neuropathy reported in patients exposed to percutaneous absorption of 2,4-D. . . ." Without the report of a neurological examination which would confirm the presence of neuropathy, this statement has no validity; the woman could just as well have had any of a multitude of asthenia-producing systemic diseases or a psychiatric condition.

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I must take issue with the publication of a misleading abstract to the report by Rose and Rose which infers the occurrence of monstrous births in sprayed humans in Vietnam. Nowhere in the text could I find reference to reports of such births in humans. Since the abstract is frequently the only part of a report that receives wide attention, I believe a correction is in order, particularly since the matter in question is such a contentious and emotionally charged issue.

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Chipman makes the point that respondents to questionnaires "will often tell you what they think you want to hear." As a neurologist, Chipman is perhaps not aware that the questionnaire is a routine method of data collection in the social sciences, and that problems of faulty recall, wishing to please, and so forth, are routine methodological problems whether the subjects are Vietnamese, Thai, or European. We were well aware of these problems and applied appropriate precautions. As our report made clear, we were primarily concerned with describing the reported symptoms, rather than attempting to define them neurologically. As for Chipman's comment on the diagnosis of asthenia, we are grateful to one of the referees of our original manuscript who brought an interesting paper by Goldstein *et al.* (*1*) to our attention; of course this is only one possible diagnosis, as our report makes clear.

Runeckles' comment is difficult to understand. In paragraph 5 of our report, we state "Five percent also referred to abortions or monstrous births occurring among the animals," while in paragraph 8 we state, "In addition, 4 percent of the respondents spontaneously referred to human abortions as one sequel of the spraying episode." In our view the abstract (which refers to "Reports of abortions and monstrous births in sprayed humans and animals") is an appropriate summary of this data.

Because we did not wish to suggest to respondents a connection between abortions and monstrous births in sprayed humans—or livestock—we did not ask a direct question on this issue. However, four respondents did report abortions and malformed births occurring either to themselves or to women members of their household after spraying. Thus two respondents reported abortions, one an abortion and a malformed birth, and one a malformed birth alone. Through this indirect form of questioning, our findings may have underreported the phenomena. We would not wish to suggest that our survey demonstrates a clear correlation between spraying and such phenomena. The kind of epidemiological work which might provide this correlation is impracticable in a society as ravaged by war as is Vietnam. However, at least one study (*2*) was carried out by the medical cadres of the Provisional Revolutionary Government on the entire population in one sprayed area that they control, in which a marked increase was reported in both monstrous births and abortions. In light of the recent settlement of the war, it may now be possible to carry out the necessary research to assess in detail the impact of the chemical war on the population and ecology of Indochina.

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**References**

1. N. P. Goldstein, P. H. Jones, J. R. Brown, *J. Amer. Med. Ass.* **171**, 1306 (1959).
2. T. T. Tung, T. K. Anh, B. Q. Tuyên, D. X. Trà, N. X. Huyên, "Clinical effects of the massive and continuous use of defoliants on civilian populations" (paper presented at the meeting on Chemical Warfare in Indochina, Orsay, France, 1970).

## Methadone Treatment

H. L. Lennard, L. J. Epstein, and M. S. Rosenthal (26 May 1972, p. 881) apparently do not find it significant that methadone treatment has enabled thousands of heroin addicts to move out of lives of degradation, crime, and risk of serious illness and death. The record of rehabilitation with methadone far surpasses the results of alternative forms of treatment. A majority of the patients in methadone programs had previously failed to find relief in abstinence programs. Rehabilitation following methadone treatment would appear to be a result that the authors might welcome as improving the quality of life for these patients.

The authors ask on what grounds can methadone be considered a "better" drug than heroin, and answer