

aspects of thermonuclear weapons. Although the name was an apt one, its origin is now lost. Likewise, the reason for "Sherwood" now seems to be lost, although it is most likely attributed to James Tuck, a member of the U.K. team at Los Alamos (1943–1945), who stayed on to help start the fusion studies there.

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## Beef Quality

The Random Samples item "Designer cattle with ultrasound" (21 Jan., p. 327) describes attempts being made by researchers at Iowa State University and elsewhere to use ultrasound for grading cattle. However, contrary to what the article says, the major determinant of higher cattle price is increased intramuscular (not intermuscular) fat, which is

known as "marbling" in the industry. Marbling can be poorly related to the palatability of beef (1), and the additional, trimmable intermuscular (seam) and subcutaneous fat that come with marbling reduce the efficiency of growth and the carcass value. Variation in tenderness is a concern of beef producers, but indicators other than marbling are needed to predict the palatability of meat (2).

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## Future Energy Supplies

In his editorial "U.S. petroleum: Past and future" (21 Jan., p. 303), Philip H. Abelson argues for the development of new and admittedly costly recovery strategies to extract the last 100 billion barrels of oil from U.S. soil—the oil presently lying in small, iso-

lated pockets of discontinuous fields.

By his own numbers, the current U.S. total oil requirement of 13.5 million barrels per day would be met for a mere 20 years more if that oil were extracted, at which point the United States would become totally dependent on imported oil, with the uncertainties that that entails for energy security. Of course, we could continue to put up with that insecurity and import oil to make that "last drop" stretch out a few years longer. But what is the point? Within a generation, the United States will have either to depend totally on imported oil (and natural gas) or it will have to change to the use of renewable forms of energy.

Wouldn't it be much smarter to take our limited research and development resources and put them toward developing the latter rather than throwing them away trying to get the very last drop of oil out of U.S. soil?

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As a participant in the upstream sector of the domestic oil and gas industry, I was pleased to read Abelson's customarily cogent comments regarding the present situation in petroleum. It would seem that if our government could

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\* Sandberg *et al.*, *Biochem. J.* **279**, 521 (1991)

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