BOOK REVIEWS

The DES Case

Cancer from Beef. DES, Federal Food Regulation, and Consumer Confidence. ALAN I MARCUS. Johns Hopkins University Press, Baltimore, MD, 1994. xii, 235 pp. $38.50.

For many Americans with long memories, diethylstilbestrol (DES) has a clear image: it caused cancer and we rid ourselves of it. But simple memories framed in an era of media conflict are often not reliable. As Alan Marcus shows, the greatest indictment of DES as a cattle growth enhancer approved by the Food and Drug Administration in 1954 has more to do with the failures of regulatory and policy processes attendant on the case than with the reality of the product as a carcinogen. For, despite 25 years of use and controversy, along with its final 1979 ban, no one ever found that DES administered to cattle caused a single case of cancer in humans.

Using the skills of the historian and the skepticism of the cynic, Marcus forays broadly and effectively into a seemingly narrow topic, not merely describing the rise and fall of DES but in the process tracing fundamental changes and their implications in food regulation.

The book develops three related themes about regulatory processes. The first and central one relates to the "progressive partnership" in agricultural research that prevailed prior to the 1940s and '50s. In this earlier era technological innovations resulted from cooperation among land-grant college scientists, corporate manufacturers of science-generated products, farm users of the new technologies, and government regulators. DES came from that partnership.

The centerpiece of the progressive partnership was science. Regulation *was* scientists working to convince cooperative public sector officials of the desirability and safety of newly developed products such as DES. When scientists disagreed, they worked their differences out through the barely visible media of conferences and journals. Their methods mattered most, underlying the sacrosanct notion that only scientists possessed the means for truly objective analysis. As Marcus notes, the progressive partnership maintained a "blind faith" in science.

The second theme picks up from there. The model of a progressive partnership could not have been maintained in an era when politics was growing more complex. Too many diverse beneficiaries and participants were involved in DES and other products of the era. Each emerged as an interest group in what came to be a continuing controversy over DES.

The first wave of conflict set alliances of land-grant scientists and corporate sponsors (Iowa State and Eli Lilly, Purdue and Pfizer) against each other. The disagreement was over administration of DES as a feed supplement (as patented by Lilly) or by ear implant (Pfizer's program). Although the debates were scientifically civil, it was clear to close observers that interest in profits produced a your-scientists–versus–my-scientists game. Reports on safety and efficacy were at odds; and when partisans of one or another of the institutions dominated a committee of the National Research Council or the Animal Health Institute, the conclusions looked more predictable from institutional interests than should the findings of pure science. My-scientist-bashed-yours was the rule.

The fault, though, hardly lies with the partisans. True, self-interest was at stake. But the insistence of scientists on their claim to be able to provide a solid basis for regulation was more to blame. Their arsenals were too limited in a political arena where contestants proliferated. In the battles over DES as a carcinogen, "science could never prove a negative, and scientists could never guarantee safety." The most they could say was that they had discovered no hazards, which was unimpressive when other scientists were taking potshots at their work.

In this milieu, more hostile and less civil critics of DES emerged. The first outside criticism appeared in the *National Police Gazette*, hardly a serious contender for credible reporting awards. The *Gazette* reported on work by discredited physicians who had only the most marginal ties to DES research. But by then it was the 1960s. Pure-food–no-preservative advocates such as these marginal players found allies in investigative journalism and in Congress.

DES was hurt worst by the prevailing sentiment of the times that authorities should be distrusted—especially when as scientists they refused to prove safety or yield their claims as regulatory arbiters. More serious enemies of DES emerged from the work of the fringe critics, but they now spoke through the *New York Times*, the New York City health board, Senator Edward Kennedy, and Representative James Delaney and his House Select Committee to investigate chemicals in food production, as well as proliferating interests such as the Natural Resources Defense Council, the Consumer Federation of America, and Ralph Nader's Raiders. All demanded a "new" means of regulation, freed from old-boy networks.

This brings us to the third theme, the consequences of divided self-interest in a policy arena. Scientists who clung to visions of the progressive partnership and insisted on their legitimacy as keys to effective regulation discovered that no alliances are permanent. Feed manufacturers, to the dismay of nearly all agricultural researchers, accepted the imposition of the Delaney Cancer Clause and its requirement that "no additive shall be deemed safe if it is found to induce cancer when ingested by man or animal." Scientists also found that the nonpartnership regulatory arena was full of substantive surprises. The FDA soon ruled DES both a new animal drug *and* a food additive subject to Delaney.

The ensuing political machinations, mostly aimed at avoiding jurisdiction under Delaney, led to a new era of regulatory analysis centered on economic and environmental cost-benefit assessments. For scientists, any remaining visions of their cornerstone role in FDA regulation were gone, as they seldom led the way in formulating new rules. Scientists from the 1960s on were just one among several sets of invited players, their methods were no longer held above reproach, and opponents vilified them as much as anyone else with whom they disagreed. The only saving grace for science was that the new regulation ensured them continued entry into the process, just as it did the guy who was extolled in the *National Police Gazette*.

Thus, Marcus's story is essentially one about the politicizing of the regulatory process and the loss of special status for scientists. Under those conditions, DES, like several other targeted products of science, was banned less on the merits of the case than through the skills of a handful of enemies.

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