

Bringing Rothschild Down to Earth

This commentary on the Rothschild and Dainton reports is by Sir Frederick Bawden, Director, Rothamsted Agricultural Station.

ONE of the more extraordinary, and certainly more complacent, of the comments I have seen or heard on the Rothschild Report occurs at the end of Professor Swann's recent article in *Nature* (234, 379; 1971). Here he tells us not to worry, for Lord Rothschild's style of writing and concepts were as crude thirty years ago as they are today, but the end results were then good because, as Swann modestly admits, he rewrote the papers. Apparently nostalgia for what he calls the hilarious times when he and Lord Rothschild did research together on spermatozoa (whether basic or applied research, I know not, but I assume certainly not strategic) has overcome his usual commonsense. Does he not appreciate that the Rothschild Report has been published, that Swann is not going to rewrite it, and the government seemingly has accepted the customer-contractor principle enunciated by Lord Rothschild with almost fanatical zeal?

Apparently, too, benefit accrues to other things than Rothschild's writing by association with Professor Swann. For instance, the MRC and SRC, on both of which he has served, are "deeply impressive and are envied and imitated the world over. These structures must not be dismantled." Let me tell him that these things also apply to the ARC and NERC, which seemingly he is willing to dismantle as a sop to Lord Rothschild. But if he doubts it, they too could be made sacrosanct by appointing him a member, which would be much cheaper and more beneficial than adopting Lord Rothschild's recommendation for these councils. And how did he manage to serve on the MRC without knowing it has institutes as large as some financed by the ARC, which he says "simply ask to be taken over by the ministries"?

The Editor of *Nature* is less complacent than Professor Swann. He suggests that only one activity of the ARC, plant breeding, should be handed over to the Ministry of Agriculture, Fisheries and Food (MAFF). "To do more would be folly, to do less churlish". To which I can only reply, then let us be churlish. Does the Editor not appreciate that, by its very nature, this is a long-term activity, even with annual crops, and hence does not qualify for a contract but could be conducted only

with the 10 per cent surcharge that is proposed should be allowed for basic and long-term research?

By a curious coincidence, however, when on the several recent occasions I have asked the permanent secretary of the MAFF what research he requires, it has been one in plant breeding—"a hard wheat". We can forget for the moment that such wheats have already been produced as only one of the many products from a general research programme of wheat breeding adaptable to meet any requirements, and simply consider setting up contract terms. First, how hard is hard? Then, with our fickle climate and different weather in different places, what amount of variation in hardness is acceptable? What is the minimum acceptable difference in yield from soft wheats? What degree of resistance to lodging and to various pests and diseases is required? How long should the contract continue? How much should be spent on it? If the final variety should yield less than soft wheats, as is probable, will the farmer be subsidized to grow it? Again, perhaps, not to worry, the proposed Chief Scientist or Controller of Research and Development will know all the answers. And, if they do, no matter whether you think their requirements cannot be met, you must accept the contract, even though it may conflict with another statement in the report, that development work, which is what producing and multiplying a new variety is, should have a better than 90 per cent chance of success.

Perhaps some scientist other than Lord Rothschild may also be sure where to draw the line between basic and applied research. I don't know; all I know is that I have never met him. Much of plant breeding, and much work in other agricultural subjects, such as nutrition, physiology and pathology, falls between his extreme categories, and is of the kind called strategic science in the Dainton Report. It leads to a steady accretion of knowledge that is applied as it is gained. Eroding this kind of work would be parlous, for out of it has come the major advances that have so greatly increased agricultural productivity. Apparently, those of us, and there are many, who have worked in such subjects and been of some practical use were sinning, for Lord Roth-

schild says this work had no customer and "This is wrong". Only those who are well versed in such subjects and have practical knowledge of farming conditions do in fact know where research is needed and where it can help, in spite of Lord Rothschild's statement that: "However distinguished, intelligent and practical scientists may be, they cannot be so well qualified to decide what the needs of the nation are, and their priorities, as those responsible for ensuring that these needs are met." Who those responsible people are we are not told, but presumably the Chief Scientist will not be among them, unless perhaps he is undistinguished, unintelligent or unpractical.

Lord Rothschild produces no evidence of need for the changes he proposes, either of inefficiency of the existing systems or of substantial improvements to be expected. Has contract research by government departments been so economical or rewarding that the activity should be extended to ministries such as MAFF, which is not a "consumer" of research in the same sense as the Ministry of Defence? Is the £6.2 million a year Lord Rothschild tells us the MAFF now spends on research more valuable to agriculture than the money administered by the ARC? Certainly there is no evidence for this in the list of those awarded the Research Medal of the Royal Agricultural Society of England, a yard-stick indicating "research work of benefit to agriculture" initiated in 1955, I think at the suggestion of Lord Rothschild when chairman of the ARC. If it is less productive, it would be a useful sum for the MAFF to offer on contract terms to the ARC.

In a speech at Long Ashton Research Station during his chairmanship he commented, seemingly with approval, on the quality of the people working for the agricultural research service, for he said it would be difficult to better them in any comparable organizations in this country or elsewhere. This will become much less difficult should his recommendations be accepted, for then it may well prove impossible to recruit or retain people of such quality. Yet, apparently, the quality of the service is to be put at risk for no other reason than that there must be no departure from the only true dogma, that applied research must be done on the customer-contractor principle. Indeed, while reading this reiterated doctrine, it seems odd that it should be published as a part of a green paper; somehow, a little red book, perhaps called "The Sayings of Rothschild", would seem much more appropriate.