

In response to such doubts, the FDA set in train a reappraisal of the literature, from which its experts concluded that "there is a strikingly high incidence of iron deficiency anaemia in many segments of the US population". They also concluded that the studies have "consistently shown higher anaemia prevalence rates among blacks compared to whites, in low income states compared to high income states, and in low socio-economic groups compared with groups higher in this regard". And those conclusions have been endorsed by virtually all the major medical associations in the United States.

But even if the studies are correct, would an iron fortification scheme help? Again, the FDA and the professional medical associations say that it would, and some individual physicians say that such a conclusion is not necessarily supported by the evidence. Writing in *Nutrition Today*, for example, Dr Maxwell Wintrobe, Professor of Medicine at the University of Utah, and a highly respected haematologist, points out that a number of studies have indicated that iron salts added to bread are not readily absorbed by the body. In particular, a study carried out in Wales by Dr. Peter Elwood, which involved two large communities, produced "no conclusive evidence in terms of an effect on circulating haemoglobin levels", Wintrobe asserts. Wintrobe also pointed out that the signs of anaemia picked up by the ten state survey may be put down to a variety of causes, and thus simply increasing dietary iron intake can only solve part of the problem.

The FDA, however, does not concede that the iron fortification scheme would be either unnecessary or ineffective. Dr Alexander Schmidt, Commissioner of the Food and Drug Administration, specifically stated last week when he announced that the proposal would be suspended, that "several tests, including measurements of iron serum, iron absorption, and iron binding capacity have been utilized to verify that low haematocrit and haemoglobin values observed in nutritional studies establishing the prevalence of anemia . . . are due to iron deficiency". Schmidt also cited two studies to show that man does utilize iron furnished by fortified bread. Thus, the FDA has announced that it will not consider further objections on those two points—the only recourse opponents have if the regulation is imposed is to go to court—and the hearings in April will thus be concerned solely with the narrow question of risk.

The hearing will thus be a scientific debate over the likely effects of increased iron intake on people suffering from storage diseases, but two other considerations are likely to arise. The first is that additional dietary iron could mask

the diagnosis of diseases which are usually signalled by the onset of anaemia. Cancer of the colon, which causes chronic internal bleeding, is the most frequently cited example. And second, it has recently been suggested that intake of additional quantities of iron could lead to the development of Parkinson's disease in some people, because the disease is associated with increased iron stores in the brain.

The hearings will thus be concerned solely with the risk side of the risk-benefit equation. That is, however, unlikely to satisfy many of the critics of the scheme, who are asking for a full inquiry into the philosophy behind the proposal, and the need for the federal government to require by law that iron be added to bread.

As Dr Wintrobe suggests, if poor nutrition is indeed the cause of iron deficiency anaemia in the United States, a more effective policy should aim at attacking the causes of poor nutrition. Such corrective measures as improving the economic status of lower income groups, reducing unemployment and lowering food prices would be more effective than "to cover our eyes, shut our minds, triple the dietary iron and hope for the best", he says.

British MPs do not like US reactor plan

John Hall

THE House of Commons Select Committee on Science and Technology, which has been examining the possible choices of nuclear reactor systems for Britain, has rushed out a report in record time in order not to be presented with a *fait accompli* by the government (Paper 145, HMSO., 1974; 14p). In the event Parliament was dissolved before any decision could be taken but the committee was nevertheless justifiably proud of its fast move. Its recommendation, which was pretty much a foregone conclusion, is that no proposal to build American light water reactors under licence should be approved on the basis of existing evidence. Questions of safety, costs and the effects of a purchase from the United States on Britain's own nuclear development programme are the bases of the committee's opinion.

To order light water reactors (LWRs) in the numbers proposed by the Central Electricity Generating Board (CEGB) would mean (the committee thinks) that apart from work on the fast breeder reactor Britain would virtually be abandoning its long established nuclear research and development effort.

As for the safety angle, the committee considers that in view of the conflicting opinion on the reliability of LWRs, it is for the proponents of light

Super bread and frozen hay

from our Soviet Correspondent

Two new nutritional advances have been announced by Soviet Scientists. A team working at Tashkent, in the cotton-growing Uzbek SSR has developed a method of extracting albumin from cotton seeds. The product, when added to dough, is said to result in bread identical in taste to the ordinary kind, but with a nutritional value equal to that of meat.

Meanwhile, down on the collective farm, an improved winter fodder is planned for livestock. Instead of the old-fashioned uneconomical hay, which loses between 20 and 40% of its nutritional value in the drying process, a new system of instant deep freezing of the mown grass at -17°C promises an all-year-round diet of fresh grass, with a carotene content twice that of hay.

water technology to prove its safety beyond reasonable doubt, rather than for their opponents to prove the contrary case. The point is of particular importance for a densely populated country like Britain, it says.

Evidence the committee heard on costing was so varied that members grew to be sceptical of any hard and fast quotation, regardless of its source. The report comments that no part of the evidence received on capital costs is directly comparable with any other part; this leads the committee to suspect that, unless there is a great deal of operating experience with the system in question, no one could guarantee that any given reactor system would prove cheaper than any other under actual operating conditions. In its opinion no sufficiently large nuclear reactor system has been operating for long enough to permit such confident estimates of installation and operating costs as those which the CEGB put forward to justify its preference for LWRs.

Common sense indicates, says the report, that until the high temperature gas cooled reactor (HTR) and the fast breeder reactor are available on a commercial basis the way forward should be to use one of the British nuclear technologies which is already proven, since this would be likely to satisfy the Nuclear Inspectorate without undue delay. Bearing this kind of consideration in mind, the committee notes in its report the enthusiasm of the South of Scotland Electricity Board (SSEB)