of how France has arranged that there should be a national space programme in parallel with ELDO. This prospect of continuity has prompted some suggestions that the sub-committee may emerge as a British equivalent of the congressional committees in the United States, but it is only proper to point out that the minutes of evidence now published show that it has a long way to go to earn this title. Vital pieces of evidence remain unpublished. The pursuit of truth is often impeded by gentility. Holding these enquiries in public would help to give them point. The lack of full-time secretariat plainly shows.

More Power for *Dragon*

AT least one dragon is trying to avoid obsolescence. The *Dragon* Project of the European Nuclear Energy Agency is moving rapidly ahead with designs for what is hoped will be a competitive 1,250 MW (thermal) power reactor plant generating 540 MW of electricity. The seventh annual report of the Project for the period from April 1, 1965, to March 31, 1966, reviews the advances that have been made, especially since the high temperature gas cooled reactor at Winfrith Heath, Dorset, was completed and its full design output was achieved. The results have been so encouraging that, despite the competition of other operative reactor designs such as the United Kingdom's fast breeder reactors, a further £1·5 million has been allocated to extend the agreement from April, 1967, to the end of that year. There remains the possibility of another extension to March, 1970.

The *Dragon* project was set up in 1959 under an agreement concluded between 12 member countries of the European Nuclear Energy Agency, six of which belong to the Euratom Commission; the original agreement was for five years, but in 1962 this was extended to eight years with an increase in the budget from £13·6 million to £25 million. An agreement in 1964 on collaboration with the United States Atomic Energy Commission provided for the exchange of information and documents and reciprocal visits by scientists. A similar agreement was concluded in July, 1965, with the Thorium High Temperature Reactor Association at Julich, Germany, and permits joint use of the *Dragon*'s major research facilities.

What to Buy?

THE perennial question of how a library should spend its money on scientific journals may be a little easier to answer after the Center for Research Libraries at Chicago has finished the programme of research which it has persuaded the National Science Foundation to finance. The intention is to help libraries to decide whether it is better to subscribe to a journal or, alternatively, to borrow from another library or to buy photo-copies of those items in journals when—and only when—they are needed. If speed of access is the prime consideration, there may be no substitute for acquisition and storage on the spot, although the centre points out that libraries may often be able to provide a better service for the same cost if they acquire several copies of frequently used journals and rely on borrowing the others. With journals the contents of which fade rapidly into limbo, it may be more economical to buy but not to bind. Sometimes it will be best for libraries to borrow all but a few serial publications.

Librarians and the academic committees which advise them are familiar enough with these alternatives. The Center for Research Libraries hopes to be able to help by making a detailed analysis of the use of serial journals, and of the costs to libraries of the various stages in handling them. The first product of the research programme will be a set of mathematical formulae by means of which librarians can hope to decide objectively how best to use their budgets. But there should also be a wealth of information to augment the present scanty knowledge of what really happens to the individual copies of the journals after they reach the shelves of libraries. The Center for Research Libraries has obviously done something to win the heart of the National Science Foundation by pointing out that some scientific papers which appear in journals are read by no more than twenty-five people. Much, of course, depends on the meaning of the verb *to read*.

Healthy Seeds

DR. JOHN GRAINGER writes: The International Seed Testing Association has begun to publish Series 3 of its *Handbook on Seed Health Testing* (Secretariat of the Association, Bennenhaven 1, Wageningen, The Netherlands; working sheets 1–33, except No. 15 and No. 23, $1.00 plus $1.00 for special cover). This is a loose-leaf folder of thirty-one sheets, each of which gives directions for methods of revealing the presence of particular seed-borne pathogens. It is introduced and largely compiled by Dr. Mary Noble of the Department of Agriculture and Fisheries for Scotland, East Graigs, Edinburgh, but individual sheets have been prepared by Dr. Rohloff of Germany, Dr. Meiri of Israel and Dr. Wallen of Canada. The present series deals with oat (three pathogens), *Brassica* seeds (four pathogens), carrot (two), soya bean (one), barley (five), lettuce (one), flax (one), rice (seven), opium poppy (one), pea (one), sesame (one), wheat (three) and *Zinnia elegans* (one pathogen). This list alone shows the international scope of the project. Methods used for examination are mainly incubation on or between blotters or in a rolled paper towel, sowing in brickstone or sand, or the placing of seeds on an agar plate. These simple, successful methods are, however, made precise by the specification of standard conditions such as depth of sowing, length of incubation at a particular temperature, and sometimes the character and diurnal variation of illumination.

Particular interest attaches to a method of revealing seed-borne lettuce mosaic virus by culture in controlled environment—a standard peat medium at a temperature of 10° C for 3–5 days in the dark, then 13–19 days at 25°–27° C in continuous illumination by warm-white fluorescent tubes. Mosaic symptoms appear on the first three true leaves of the lettuce if the disease is indeed carried by the seed. Washing the seed sample may reveal the presence of some pathogens, while the herbicide, 2 : 4-dichlorophenoxyacetic acid (2 : 4-D), is occasionally necessary to prevent germination when, for example, cabbage seeds are examined for *Sclerotinia* rot. Loose smut of barley can only be revealed by the microscopic examination of embryos. Each sheet is clearly illustrated by excellent half-tone blocks and line drawings of the pathogen as revealed by the methods considered. In this the present volume is