

News and Views

In the midst of the “high tech” hype applied to the Biotechnology Industry there are those who advise caution. Caution, that is, with regard to how rapidly we can expect recombinant DNA technology to be applied successfully in the solution of complex biological problems. One recent development can be used as an example of why some are advising a cautious attitude. That development (one of the most exciting recent reports) is the expression of a bacterial gene in plant cells. The possibilities for the use of the cloning systems reported at the 15th Annual Miami Winter Symposium (January 1983) include improving crop yield. From expression of a single-gene-encoded antibiotic resistance, to a multi-gene-controlled character that we observe as improved crop yield is an enormous leap. In order to accomplish this leap, one must isolate the genes coding for higher yield. Unfortunately there is very little known about these genes. It appears that in order to apply this new technology to such a complex biological problem, much more research is necessary in the area of the molecular biology of plants. Logically, the successful application of the technology may be hindered until the new knowledge is obtained. Those who are optimistic, although they concede that it will be necessary to do the basic studies, do not concede that it will hinder the progress. Their “ace-in-the-hole” is that the recombinant DNA technology itself will be used to perform the basic studies. Given this, and dedicated people, one has to predict continued and rapid progress in the applications of this new technology.

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