

- 4 Ahmed, M., *Indian For.*, 1969, 95, 214
- 5 Hasan, S. M., Proceedings of Workshop on Bamboo Research in Asia, Singapore, 1980, p 16
- 6 Chaturvedi, A. N., *Indian For.*, 1988, 114, 489

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A. F. Mascarenhas replies:

We do not agree with Chaturvedi's views.

We would like to see the statement 'most bamboo species show precocious flowering' substantiated by a scientific reference. There are several hundred bamboo species. The references that have been cited are very interesting. However, many of the findings reported in these could be accidental. If, out of 39 clumps raised from prematurely developed seeds of *B. tulda*, 16 clumps 'behaved similarly' (Hasan 1980), we should by now be having a fairly big population of bamboo clumps exhibiting premature flowering! The flowering response reported in culture by us is not accidental. It is fully reproducible and has also been demonstrated with dif-

erent batches of seed. The statement 'no group has raised successful plantable material from mature culms' may have been true a few years ago. There are now several groups who have obtained success with mature culms. In fact, in our own laboratory, we have raised cultures and plants from such material. We are also aware and happy that there are now several groups in India attempting to use mature culm cuttings as vegetative propagules.

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NEWS

Adaptive problem solving

A one-week seminar was recently (8-15 May 1991) held at Kodaikanal on the topic 'Object-oriented analysis and programming'. The seminar was sponsored by the Department of Applied Science of the American College, Madurai. The participants were young scientists from Mysore University School of Studies in Physics; Raman Research Institute, Bangalore; Kodaikanal International School and the physics and applied science departments of the American College.

Object-oriented analysis is a recently developed systematic way of analysing problems for solutions using computers. Its new emphasis includes the encapsulation of data abstractions and operational abstractions in a way which tends to make the resulting programs

relatively insensitive to changes in the problem. This means that additional demands or requirements of the user on the system can be easily incorporated without disturbing the system itself. This has obvious advantages in scientific situations where the essence of creativity is innovation. Sadly we often find our computational tools become too easily ineffective when problem innovations or new user demands/requirements are introduced. Object-oriented analysis is intended to reduce this effect.

For realistic experience and learning the participants used a real administrative problem which demonstrated in its solution many of the features and advantages of the method. The discipline and methodology can certainly be

used to advantage in many scientific situations also and readers may find the book *Object-Oriented Analysis* by Coad and Yourdon (Prentice Hall, New York, 1990) a worthwhile introduction for both scientific and computer-oriented use.

The participants in the seminar were able to appreciate the potential impact of this new methodology on computer-aided solutions in their own fields, including the very strategic area of computer-aided instrumentation of many sorts.

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