
CONFERENCE ON KEY PESTS OF AGRICULTURAL CROPS

A National Conference on Key Pests of Agricultural Crops is being organised at C. S. Azad University of Agriculture & Technology, Kanpur from 21–23 December 1985. For participation and other details of the conference please contact Dr Y. K.

Mathur, Professor & Head (Entomology) and Organising Secretary, National Conference on Key Pests of Agricultural Crops, C. S. Azad University of Agriculture & Technology, Kanpur 208 002.

ALL INDIA SYMPOSIUM ON INSECT PHYSIOLOGY, ECOLOGY AND BEHAVIOUR

The Association for Advancement of Entomology proposes to organise an All India Symposium on Insect Physiology, Ecology and Behaviour of different insect groups from 15th to 17th January, 1986 at Trivandrum. Details regarding the Symposium can be

had from Dr D. Muraleedharan, Convenor, All India Symposium on Insect Physiology, Ecology & Behaviour, Department of Zoology, University of Kerala, Kariavattom 695 581.

NEWS

EVOLUTION THEORY IN MODERN BIOLOGY TEXTBOOKS

... A study of coverage of evolution in 18 biology texts now being offered for use by schools was conducted by Wayne A. Moyer (People for the American Way) and William V. Mayer (U. Colorado). "In addition to numerous examples of careless presentation of biological information—such as neglecting the fact that some mammals, such as whales, are hairless and that embryos are far more developmentally advanced than eggs—the study concentrates on poor or absent explanations of evolution. For example, one book says that 'to survive in a changing environment organisms must adapt.' This, the study says, teaches the long-rejected Lamarckian view that an individual animal that changes can pass those changes on to its offspring. In fact, it is species or

populations within species that adapt. The change does not occur within individuals but from one generation to the next. Another text offers the following: 'Millions of species have evolved successfully while others have become extinct.' This, the study says, suggests that extinct species were unsuccessful. In fact, for a species to appear in the first place, it would have to be successful. The dinosaurs—their very name an epithet for failure—were among the most successful groups of animals, thriving for 150 million years."

[(Boyce Rensberger in *Washington Post* 3 Mar 85, p. A8). Reproduced with permission from Press Digest, *Current Contents*®, No. 16, April 22, 1985, p. 13 (Published by the Institute for Scientific Information®, Philadelphia, PA, USA.)]

WHEN YOUR HOUSE MAKES YOU SICK

... "A study sponsored by the Consumer Product Safety Comm. [CPSC] of 40 homes in Oak Ridge, Tenn., found from 20 to 150 hazardous chemicals in each last year. The indoor concentrations of these substances were at least 10 times, and in one case 45 times, higher than outdoor concentrations, according to Kailash C. Gupta [CPSC]. Ten years ago, he said, the stale air inside an average home would be exchanged with fresh outside air once an hour. Today, with more effective insulation, most homes have one air exchange every 3 hours, and in many energy-efficient homes the air changes only once in 10 hours Illness caused by indoor air pollution

usually have symptoms. Among them, experts say, are headaches, nausea, dizziness, drowsiness, respiratory ailments, persistent coughs, rashes, insomnia, lethargy, loss of memory, heart problems and irritation to the eyes, nose and throat. 'There are people all over the country thinking, "I can't shake this cold," when it's their house that is making them sick,' Mary Ellen Fise [Consumer Federation of America] said."

[(Lisa Belkin in *New York Times* 7 Mar 85, p. C1, C8). Reproduced with permission from Press Digest, *Current Contents*®, No. 18, May 6, 1985, p. 16. (Published by the Institute for Scientific Information®, Philadelphia, PA, USA.)]

WHY CONSERVE PLANTS?

... "There are 250,000 species of plants in the world and on them life rests. It might be thought that if a tenth of these species become extinct (the current cautious estimate) it will be too bad, but then dinosaurs are extinct, too, and we still manage to get along. Apart from the fact that the world would be much nicer if we still had dinosaurs, there is the other fact that without plants we cannot live, and the loss of 10% can be so severe that it's probably just as well we don't realize what we are losing—in the sense that if we are going to die next week, it's just as well not to know about it. . . . There are plants. . . . that produce liquid wax, an extraordinary thing in plants, from which gasoline can be manufactured. There are plants

that offer an alternative to rubber, valuable because artificial rubber lacks some of the most important qualities of natural rubber from plants. And so on endlessly. How many priceless cures and how many economic treasures we are losing today can only be estimated, but the estimates of loss run not only in human comfort or cure, but in the megabillions of dollars."

[(Henry Mitchell in *Washington Post* 1 Mar 85, p. B2). Reproduced with permission from Press Digest, *Current Contents*®, No. 17, April 29, 1985, p. 8 (Published by the Institute for Scientific Information®, Philadelphia, PA, USA.)]

PROMOTING SCIENCE CAREERS FOR WOMEN

... "Despite all the attempts in the last few years to promote [historical role models to increase the participation of women in science], I find two disturbing themes: first, the emphasis on glorifying 'the first woman to do X' where X would be unremarkable if done by a man—what is the incentive to be the second or the 100th woman to do X? Second, there is the implication that what women actually do in science is tedious drudgery which rarely leads to an exciting discovery—or if it does, the discovery is made by a man. Thus, in addition to all the other social and cultural factors that discourage girls from going into science, especially the physical sciences, one has the

impression that 'the few women now in science may not present models of *success* to female students' If we are going to use examples from the history of science to inspire girls to become scientists, and perhaps also to persuade male scientists to let women have opportunities to do important work, then these examples must show women as discoverers, not just as drudges."

[(Stephen G. Brush (U. Maryland) in *Physics Teacher* 23(1): 11-19, Jan 85). Reproduced with permission from Press Digest, *Current Contents*®, No. 18, May 6, 1985, p. 13. (Published by the Institute for Scientific Information®, Philadelphia, PA, USA.)]

A NOVEL APPROACH TO STRUCTURES

A novel development in applied physics is expected to have revolutionary implications for many areas of science.

It involves low dimensional structures (LDS) or arrangements of semiconductor materials such as gallium arsenide that are so thin—perhaps a few thousandths of a millimetre—that bulk statistical analysis cannot be applied. A few electrons, if isolated,

do not obey statistical laws and one cannot average out general behaviour, which is separate for each one.

Several techniques are now being used for making thin layers or combinations of layers such as epitaxy—the deposition of single atom layers—or metal organic vapour deposition (BIS, British High Commission, Chanakyapuri, New Delhi 110021)

SUCCESSOR TO THE SILICON CHIP

Britain has launched a £3.4 million programme to be in at the outset of the next generation of silicon chips. The material to be used is called silicon on insulator (SOI) and it promises to become the essential component of very large scale integrated circuits (VLSIs). With thousands of components on one chip, devices such as microprocessors will become even

more complex than at present.

In the new technique, the oxide is created just under the surface of the silicon. The active material is therefore on the surface and the insulator underneath. Circuit density will be increased and the performance of devices improved. (BIS, British High Commission, Chanakyapuri, New Delhi 110021)

THE CHEMICAL AND BIOLOGICAL POWERS OF GARLIC AND ONIONS

... "Chemists must be included among the garlic and onion lovers. For them the reasons are professional: chemists have long been attracted to substances that have strong odors, sharp tastes and marked physiological effects. Investigations made by chemists over more than a century establish that cutting an onion or a garlic bulb releases a number of low-molecular-weight organic molecules that incorporate sulfur atoms in bonding forms rarely encountered in nature. The molecules are highly reactive: they change spontaneously into other organic sulfur compounds, which take part in further transformations. Moreover, the molecules display a remarkable range of biological

effects. The lacrimatory, or tear-inducing quality of an onion is only one example. Certain extracts of garlic and onions are antibacterial and antifungal. Other extracts are antithrombotic, that is, they inhibit blood platelets from forming thrombi (aggregations of themselves and the protein fibrin). In short, they act to keep blood from clotting."

[(Eric Block in *Scientific American* 252(3): 114-19, Mar 85). Reproduced with permission from Press Digest, *Current Contents*®, No. 16, April 22, 1985, p. 14 (Published by the Institute for Scientific Information®, Philadelphia, PA, USA.)]