

clear and comprehensive account of researches carried out in USA and in India during the last two decades on this aspect. The commercial grain hybrid using CMS mechanism was first produced in India in 1965 leading to a spectacular increase in overall production. However, the production suffered a severe set back due to the susceptibility of this hybrid to downy mildew caused by the fungus *Sclerospora graminicola* which resulted in severe epidemics in the following years, and by 1974 the production of this crop dropped from 8 million metric tons to 3.6 million metric tons. Breeders soon realized the need to replace the CMS source Tift-23 which was highly susceptible to the disease with a resistant one, and they were successful in developing resistant CMS lines for producing hybrids. Pearl millet production again picked up and showed an upward trend, a remarkable achievement for the breeders and pathologists!

The paper "The Chenopodium grains of the Andes: Inca crops for modern Agriculture" provides invaluable and extensive information. The evolution, distribution, morphology and ecophysiology, diseases and pests, agronomy, nutrition, processing, breeding methods for the two Chenopodium grain crops Quinoa (*Chenopodium quinoa* Willd.) and Canihua (*Chenopodium pallidicaule* Allen) which have high

potential for exploitation in the dry highland areas of tropical and temperate regions.

The article "Seed quality of grain legumes" by A. A. Powell *et al.* deals with the nature and various aspects of seed quality physiological and pathological changes in storage and mechanical damage in relation to seed quality. The paper presents a critical appraisal of different methods of testing seed quality currently developed and practiced.

The volume provides a wealth of information in the new and fascinating areas of Applied Biology. Various papers presented in the volume are as much a tribute to the editors as to the authors who have collected voluminous literature and have made painstaking efforts in presenting these in a clear and lucid manner. Researchers, teachers, students of Agronomy, Plant Breeding, Seed Science and Technology will find the volume rewarding and tempting to retain the same in their book shelves.

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## NEWS

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### THE IMPORTANCE OF SMALL-SCALE PHYSICS RESEARCH

... "In the US, small-scale research in physics is organized around approximately 1800 independent groups, some as small as a single faculty member with one graduate student, or an experimenter with a few colleagues in a government or industrial laboratory. Many of these groups are relatively free to shift their goals as scientific opportunities unfold, and are flexible enough to move rapidly in new directions. Independence is the hallmark of this flexibility, and the research could reasonably be described as 'independent group research'. . . . To appreciate the impact on society of research in small physics one need only think of what the world would be like if the transistor had

never been developed. It would be a world without microprocessors, computers and the vast network of data-processing equipment on which science, governments and businesses depend, a world without instantaneous global communications and without the countless feedback and control devices that are essential to everything from jetliners to pacemakers."

[(Daniel Kleppner (Massachusetts Inst. of Technology) in *Physics Today* 38(2):78-85, Mar 85) (Reproduced with permission from Press Digest, *Current Contents*<sup>®</sup>, No. 22, June 3, 1985, p. 13. Published by the Institute for Scientific Information<sup>®</sup>, Philadelphia, PA, USA.)]

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