basic needs and tackle them with the available devices and circuits of today". In the opinion of this reviewer the author has succeeded to a large measure in his attempt of treating the subject through a generalised way by using functional blocks.

There are 19 chapters in this fair sized (750 pages) text, the first being an overview of the subject. The book covers topics on the basics of power conversion; wave shaping; amplification with practical amplifying devices; models for amplifying devices; discrete and IC amplifiers; low and high frequency and power amplifiers; signal processing; waveform generators; modulation and demodulation; voltage regulation and power control. There is a useful introduction to functional electronic blocks for digital systems. The book concludes with a very brief introduction to instrumentation and computer systems.

This book has much to commend it, particularly its clear and simple language, its clarity of print, and well laid-out diagrams. It is also well supplied with plenty of worked examples, problems and review questions for the student to attempt, at the end of each chapter. Answers to many of the problems have been supplied.

The reviewer feels that the book would be ideal as a first course in electronics, because of its painless introduction to the use of functional blocks. Its lack of prior knowledge requirements, other than basic circuit theory, makes it suitable for a wide spectrum of readers.

The value of this book would have been enhanced by the inclusion of a chapter on optoelectronic devices. Even though many handbooks from the manufacturers are available it would be helpful if references are made to a few commercial types while explaining the various devices.

On the whole this should prove to be a most useful text for students.

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ANNOUNCEMENT

XIV INTERNATIONAL SERICULTURAL CONGRESS HELD AT BANGALORE FROM 21–25 MAY 1984

The International Sericultural Commission (ISC) is an inter-governmental organisation founded in 1948, with its headquarters in France. At the invitation of the Government of India the XIV International Sericultural Congress was held in Bangalore. India is not only a member-state but also a member of the Executive Committee of ISC. This is the first Congress of the Commission hosted by India. Out of the 16 Member-States of ISC (Algeria, Brazil, Central Africa Republic, France, Egypt, India, Iran, Japan, Lebanon, Madagascar, Mauritius, Rumania, Spain, Thailand, Tunisia and Philippines) majority of the States have attended.

Theme

The theme of the congress "Tropical Sericulture" was particularly apt, since the importance of the tropical sericulture lies not in its present size but in the future role it has to play in pushing up the standards of living of a vast majority of rural people in the third world. Out of the total mulberry silk production in the World (52000 tons in 1982), tropical countries account only for 17%. However, India is the largest tropical country in the World engaged in sericulture (52000 tons in 1982–83).

Inaugural Session

The inaugural session saw a galaxy of well known sericulture scientists and technologists from India and abroad, the senior officers of the State Govt. of Karnataka related to Sericulture Industry, besides the senior staff members of the host Central Silk Board, India.

Shri. B. Sivaraman, Chairman, Central Silk Board, welcomed the gathering. He remarked that there were no systematic studies conducted for estimating the World demand for silk. The figures released by the International Sericulture Commission and also those
compiled by the sugar and raw silk price stabilization committee, Government of Japan indicate an all-round increase in the price level of silk goods despite increased production over the last ten years. Therefore, he said that we are led to believe that the increase in price of silk was not only the function of inflationary tendencies but also an indication of the increasing demand for the silk. “It is therefore reasonable to assume that the overall world demand for silk would remain far above the actual supplies for a long time to come.”

He expressed great satisfaction that the Indian scientists have achieved a break through the evolving new bivoltine races suitable to the Indian conditions. He reiterated that it was not only in mulberry sericulture that India had made strides but also in tropical tasar. India was the only country today which had all the four types of commercially known silks and more than twenty thousand scientists, administrators, extension workers and managers are involved in the process of sericulture development throughout the country.

Awards

The following sericologists were awarded the Louis Postuer’s medal for their contribution in silkworm science.
Prof. Y. Tazima, Institute of silkworm Genetics and Breeding, Iikura, Japan.
Mr. Yasuhias Mano, Sericultural Experiment Station, Japan.
Prof. Jean-Marie Legay, University Claude Bernard Lyon I France.

Chief Addresses

The inaugural address by the Honourable Minister for Sericulture Smt. Chandraprabha Urs began with drawing attention of the participants of the historical development of silk Industry in India, contribution of India as the third largest sericulture nation in the world and the tremendous expansion programme for Sericulture in Karnataka State for consistently produce atleast 65 percent of India’s mulberry silk for many more years to come. She acknowledged that the Modern Silk Industry in India has grown to meet the domestic rather than export requirements and this is a fact of great importance for the Industry.

She said that it was interesting to note that despite the enormous increase in the production of man made fibres in recent years, global silk production is growing slowly. She pointed out that there is a gradual decrease in silk production in the developed countries like Japan, Republic of Korea; however, China has been a leading raw silk producer and exporter. She described the expansion of Sericulture Industry in Karnataka State through World Bank Assistance with respect to Bivoltine Silk Production. In order to strengthen the data base on silk industry, it was of paramount importance to have International Co-operation, in knowledge and technology related to cultivation of mulberry, rearing of silkworms, reeling and processing of raw silk. She also suggested that International Exchange of know how must be considered by International Sericulture Commission on top priority.

Conference

After the inauguration on 21st May 1984, the papers were presented for three days viz 21st, 22nd and 24th May 1984. The papers covered were classified into five categories. Bombyx mori, non-mulberry, Bacology, Silk Reeling and Handicraft and Economy. In addition to these papers in the oral presentation a few papers in all these areas were accommodated in the poster sessions.

i) Mulberry and Bombyx mori

In this session, ten papers were presented of which two papers dealt exclusively on mulberry research and 5 on silkworm research. Of the remaining 3, 2 were of inter-disciplinary in nature and one on organisation aspect of the silkworm seed, which occupies the nucleus status of the sericulture industry. Exploitation for evolving improved strains by selection, from open pollinated seedlings, controlled hybridisation and selection and mutation breeding. Further, agronomical practices evolved under irrigated condition as also manural schedule were highlighted in one of the 2 papers on mulberry research while the other informed of the screening of a few fungicides for controlling stem cranker disease. Papers on silkworm research included the performance of exotic bivoltine races under tropical conditions, improvement of silkworm races in India and breeding of autosexing silkworm races in Japan. Considering the fact that diseases in silkworms are widely prevalent resulting in crop loss, the paper on identification of the resistance of a number of silkworm races to six types of diseases was of immense interest. Keeping in view the concept of raising under hygienic conditions the young age worms for onward distribution as is being practiced in major silk producing states in the country, the paper on popularisation of the co-operative rearing for young silk worm with artificial diets was of value. The two papers of inter-disciplinary
in nature dealt with evaluation of mulberry varieties for their suitability for silkworm crop raising.

ii) Non Mulberry

The 12 papers that figured under this head covered wide ranging topics on the three non-mulberry types. The three papers on the host plants included, cytological studies on the food plants of tropical Tasar, taxonomy and floral biology of som and evaluation of caster varieties by using life tables. Two papers, one dealing with the natural population of muga and the other on species differentiation in genus Antheraea were presented. A couple of papers on oak tasar one related to the effect of altitude on domestic rearing in Western Himalayas and another in Japan were presented. Changes in the protein content of haemolymph and variability and correlation studies of shell weight and their contributing traits were the other two papers presented. Furthermore, two papers connected with the food requirement instarwise and development of artificial diet were presented.

iii) Bacology

Bacology, the science of silkworm covers fields such as Biochemistry, Physiology, Genetics, Molecularbiology and Pathology and others,—an insight was provided through one of the papers. Silkworm as an important and useful research material was well brought out in the Bacology Section, since in this session 10 papers were presented. The other papers presented include application of prolactine and its protein influence in bio-chemical constituents including cocoon size; with reference to gene expression, the role of ribonucleoprotein particles in fibroin synthesis; through radio active labelling studies, use of blue green algae as additional supplementary source of protein were presented. Yet another interesting paper covered an important aspect for terrestrial insects, namely water metabolism with emphasis on adoptability in tropical habitats. The role of biostimulator and juvenile hormone on protein biosynthesis in silkworm was discussed. The pyruvate level and lactic dehydrogenase activity in the eggs undergoing diapause and the role of light in influencing the biochemical constituents were presented through the other papers. Uzify which has been causing severe damage to the industry since four years has opened wide scope for conduct of research in different laboratories. One of the papers presented had relevance to the cytological studies. A paper on one of the non-mulberry silkworm Philosamia ricini was also presented.

Reeling and Handicraft

Under the oral presentation there was only one paper which dealt with the aspects of mulberry silk reeling with indigenous machines using different types of cocoons. Likewise, the studies related to automatic reeling machines were also covered. Some of the aspects of non-mulberry silk reeling, hand spinning were also discussed. In the poster session, one paper on physical properties of silk fibres was accommodated.

Economy Section

There were two papers on economy with special reference to success and failure of bivoltine rearing and economics of sericulture in Karnataka State. These authors have listed out, the factors such as climatic condition, hygienic conditions and adoption of silk worm races to tropical condition as also silkworm seed production in relation to bivoltine production. Though, with the experience of Thailand, China and India, it has been stipulated that that approach to bivoltine should be in a selective manner viz seasons, farmers, area of extension etc.

Overview

In addition to the conduct of various technical sessions, group discussion was also initiated. However, it was not found to be quite effective. A short cultural excursion and cultural programmes were arranged for entertaining the delegates. The organisers of the conference could have arranged an exhibition to indicate the cultural heritage of silk industry and the progress made for the development of silk industry in India. This should have added to the merit of the conference in India as host. Since, the conference was conducted for five days, greater number of papers added in the oral presentation session could have benefited the delegates better in the deliberation of the aspects of post cocoon harvesting technology, and silk fibre science was not represented in the conference. It is therefore, of immense importance to give adequate coverage of this area of research relating to the sericulture industry. At the end of the conference, vote of thanks was proposed by Shri Bhatikar, Member-secretary Central Silk Board, India.