

Editorial

With this issue, the publication of the first volume of the International Journal of Tea Science has been completed. The journey that was expected to be covered in one year, has taken two to complete. Metaphorically speaking, the International Society of Tea Science took a "Slow train to Timbuktoo". After the first issue, the Journal got almost derailed, when the partner institute made known its intention to renege on the M.O.U of equally sharing the financial costs in a joint project-mode. There were important lessons to learn enroute, including the reasons for delayed arrival of the Journal at its destination i.e. in the hands of its readers. One, in the public domain, the printing of the 150-page 2+3 issue took nine weeks against two weeks flat for the current issue in the hands of a private printer. Further the time required to post the copies to the members took over two months in the institutional dispatch section for the first issue, while the whole job of posting the next issue could be completed in one week by personal handling.

Another milestone crossed with this issue is the completion of the first annual membership of ISTS, for receiving copies of the International Journal of Tea Science. With the experience gained, the membership fee structure has been modified. Two subsidized categories of members, students and retired non-salaried professionals, whose payments did not meet the cost of production of the Journal, were discontinued. A two tier system of annual fees has been introduced: the corporate/institutional members and the individual/scientist/professional members. On considering the long term arrangements of the financial stability the International Society of Tea Science has introduced a five year membership 2001-2006 with retrospective effect whereby the corporate members could adjust the five year subscription by the amount of the already-paid first year membership. Further, on popular demand, Life Membership for the individual members/scientists/professionals has also been introduced whereby the payment of 2001 -2006 with retrospective effect, with similar adjustment of the payment for 2001-2002 already made, would entitle the individual members to obtain the journal for their lifetime, without further payments. This subscription would be deposited in a fixed deposit account so that the annual interest earned goes towards meeting the cost of the journal. The new rates are given on the first inside cover of this issue and will be effective for subscription beginning with the first issue of the volume II, which will be published in March 2003. **Please pay your membership for the year 2002-2003** according to the new rates which will entitle the members to receive four usual quarterly issues or two special issues annually.

Notes and News section comprises two components. The first – a compilation of what the Readers' Write, which reflects the opinions and hopes of readers and advice of the well wishers of the International Journal of Tea science on making this fledgling journal a strong instrument for effectively linking the information sources with the users i.e. tea scientists, tea growers and policy makers. We at the International Society of Tea Science will always endeavor, within the available means, to meet the challenge of harnessing modern Information Technology for the benefit of this centuries old industry. Such sharing of readers' opinion provides a road map for future improvements and encourages the editorial personnel.

In the 2nd part, Gita Narayani focuses on the emerging scenario of bought-leaf factories in India, which is the direct consequence of explosive growth in the number of small-holder tea growers during less than two decades, particularly in North India. Industry is still uncertain whether it is an ephemeral upheaval or a symptomatic paradigm shift to meet the severe cost-price squeeze, which will have a long term impact on the shape of future organization of the tea industry. The comparison with emergence of Kenya's small-grower sector during the 60s, is illuminating. The KTDA could harness the small-growers into niche producers of excellent quality tea in the face of high-input/high-output estate sector. It is a matter of debate in India whether the loosely structured small-holder grower can survive on selling leaf to the unorganized bought-leaf factories and co-exist with the production-linked large scale manufacture. Birth pangs of this tiny sector struggling with all their problems and prospects to find a place in the organized tea economy, will need a lot of policy support and empathy at all levels, before this sector can become viable and co-exist with its big brother. .

The research section comprises two papers. One is an original research paper by S.E.Kabir, and the other is a topical review by Pandey & Palni.

Darjeeling tea connotes excellence in quality. Tei Yamanishi, an eminent scientist who has unraveled the basis of tea quality in many parts of the world, stated that some favorable weather conditions exist during the flavory season in known-quality-areas of China and Srilanka. In Darjeeling a unique combination of enabling weather conditions and plant type yields the best quality tea. But the industry and scientists recognize that for survival, Darjeeling needs volumes as well. Kabir in his research paper carried in this issue delves into the physiological response of three clones to the components of Darjeeling weather, in respect of their individual and collective influence on photosynthesis and crop productivity, during different months of the seasons.

What is not visible to the eye in the tea bush has a strong influence on crop production. Pandey and Palni inform us in their

paper on rhizosphere in this issue that the microscopic organisms harbored by tea root system are a mine of gems which, properly harnessed, can add sparkle to the bank balance of the tea grower. Tea rhizosphere comprises several species of antagonistic microbes. Some of them are close relatives of the famous penicillin producers and fight against soil borne tea-root-diseases. The paper points out that there are little-researched microbial inoculants, which establish beneficial biological agents in the tea rhizosphere. These microbes help nutrient utilization and improve tea plant metabolism thus enhancing the crop growth and increasing the leaf harvest. Frost resistance of the lush green tea fields have been traced to ice-nucleation-active bacteria (INAB), isolated from tea phyllosphere, which shield the plant against frost damage in severe Northern climes and deep southern latitudes.

Statistics section in this issue has shifted attention from growers to consumers, bringing in unusual data of imports by Pakistan during the last 10 years, received by the courtesy of Mr .Mohammed Hamif Janoo, the Chairman of Pakistan Tea Association. The three tables detail import tonnage and value of tea imports in Pakistan from different countries, in 1992 as well as 2001-2002. Source, volume and value of imports for 1992-2002 is reported in the last table. We leave it to the marketing experts to do a worthwhile analysis of this information on quantum and sourcing of their tea imports by one of the largest emerging tea importers in the worlds.

Scientific abstracts are the backbone of this journal and are an effective link between information sources and the users viz. tea scientists and tea growers. To make information search easier, a **new classification system has been proposed with 30 classes to replace the previous 20 groups**. The readers are requested to send us a feedback about their suggestions to improve upon the proposed system which will come into vogue with the first number of the second volume of the International Journal of Tea Science, scheduled to appear in March 2003.

Author index has been compiled for all the entries of scientific abstracts included in Volume I. This is placed at the end of the issue. We hope to be able to compile a subject index which has taken a second place in priority due to the subject wise classification during reporting of the abstracts.

There are two other unusual features of the abstracts in this publication. The reporting of individual papers presented in a mega Conference O' Cha Festival in Shizuoka provides a wide spectrum of information about the latest advances in different sectors of tea science. (The assistance of Ms. A Lakshmi in this very arduous task of compilation is thankfully acknowledged) Such a massive gathering of scientists showed a paradigm shift from traditional research in production and processing of tea to health related and pharmaceutical properties of tea, which account for almost half of the total researches reported, almost all of them originating from the consuming, developed countries. In an overview report, this information would have been lost to the general readers since the research papers presented in such conferences are neither reported individually in the Journals nor included in abstracts. Another surprise that the editors came across in compilation of these abstracts was a noticeable chasm between the papers abstracted by premier abstracting services for the internet and those published by even well known tea research institutes. A consolidated compilation of all the publications during the last three years from a premier tea research institute received by this Journal and those downloaded from the internet, showed that only 10% of the papers were carried on the internet. . For comprehensive availability of all the research reports emanating from the known tea research institutions, it is proposed to establish an information network, enabling the link institutions to keep the IJTS well informed through a regular feed back. It will allow more comprehensive coverage of all the published papers through abstracts in this Journal. This will have an added advantage in that the interested readers could directly access the original reprint from the author and even enter into a regular dialogue of further enquiry and follow up. The tea research institutions that are interested in participating in this network, may please contact the Resident Editor by email (teascience@hotmail.com) or by letter addressed to the ISTS office at A-298 Sarita Vihar, New Delhi 110044. India.

Two colored pages available in this issue have been utilized for making announcements for future activity of the International Society of Tea Science. Four special issues on health, pesticide residues, germplasm characterisation and cost-price squeeze focus on the recent developments in these very vital areas. Announcement of a mega 3rd International Conference on Global Advances on Tea Science is a watershed in the activities of the ISTS. The theme of the Conference is relevant to the depressed times the industry is passing through. The deliberations would revolve around the Impact of Science on the Economics of Tea Industry which is proposed to be held on November 21-23, 2003. It is a measure of the support received by this Society that all the 22 plenary speakers invited, have committed to participate in the Conference. An equally good response of the volunteers for oral presentations and poster presentations is expected. We trust that the delegates will respond very enthusiastically to listen to the erudite speakers to be *au fait* with the latest international knowledge of tea science. Do mark the dates on your appointment calendar. Look forward to meet you all there.

New Delhi
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(N.K. Jain)
Resident Editor