

EDITORIAL

TEA—THE OLDEST BEVERAGE IN THE WORLD?

The origin of tea as a beverage is shrouded in the mists of antiquity. Legend and folklore have associated tea drinking with the Emperor Shen Nung, himself a legendary character, who was said to have reigned about 2737 BC. The word itself comes from the Chinese 'Amoy' dialect word t'e (pronounced 'tay'). The Cantonese called it ch'a (pronounced 'chah'). This name was known in Japan, India, Persia and Russia. The Dutch introduced the Amoy word to Europe through Java and the English word 'tea' is a deviation from the Dutch. Tea is unknown in the Bible and appears to be unrecorded in English literature until the latter half of the 17th Century, although it appeared to have been known in England during the first Elizabethan era. The question of the origin of its usage as a beverage is discussed in this issue of *The Tea Quarterly* by the Canadian, Professor Frederic Fu Hung, Professor of Geography of the University of Guelph, Ontario, who is the author of the distinguished French Language publication *La Geographie de Thé*.

DILEMMAS IN CONSERVATION

We are privileged to present the Presidential Address delivered to the Association of Applied Biologists in the United Kingdom by Dr D. L. Gunn, a former Director of the Tea Research Institute of Sri Lanka, and an Adviser to the Secretary of the Agricultural Research Council of the United Kingdom. At a time when the entire world appears to be in conflict on the one hand between the need to increase agricultural production and on the other, to conserve the environment and limit the use of pesticides which are vital for Agriculture, it is both refreshing and informative to have the views of a distinguished scientist who has an intimate knowledge of insect pests including the worst of them, the locusts.

WATER POLLUTION

Dr A. W. R. Joachim, himself a former Director of the Tea Research Institute of Sri Lanka, and presently a member of the Water Resources Board of Sri Lanka, writes on 'Agriculture and Water Pollution', a subject of great complexity and far reaching importance. Not only do pesticides contaminate water but so do fertilizers, which are used so extensively in Agriculture. In the tropics we are indeed fortunate that rainfall is quite heavy compared with that in many temperate countries. At the same time, during dry periods, the high insolation may dry out our smaller reservoirs, and thereby concentrate in their beds, the chemicals that pollute the water. Awareness of the dangers is the first step in arriving at a solution to the problem and Dr Joachim's warnings come none too soon.

BRINGING YOUNG TEA INTO BEARING

In the second article in our series 'Studies on the methods of bringing clonal tea into bearing in the high-country of Sri Lanka' W. B. Manipura and S. T. Yatawatta present more precise information on the relative merits of the common practice of

bending at various angles in order to develop frames, in comparison with the removal of the tops of young plants by cutting them across at different heights. These methods are compared with free-growing plants, the criteria of evaluation being dry matter content, the extent of branch spread and mortality rates. It is pointed out that maximum early growth is not the only factor to be considered in the selection of a technique. Field conditions in different tea-growing areas would profoundly affect the choice. Removal of plant parts always led to growth reduction in the early stages of development.

MITE PESTS OF TEA IN CEYLON

The work of W. Danthanarayana and D. J. W. Ranaweera on the effects of some environmental factors on the occurrence of three mite pests of tea in Sri Lanka is presented by courtesy of the Editors of *The Annals of Applied Biology*. It is known that mite pest attacks are noticed during dry weather but the authors point out that peak numbers occurred during the inter-monsoonal dry period. The time for the commencement of control measures, where applicable, is indicated. The presence of shade trees seemed to favour higher populations of *Oligonychus coffeae* (Red Spider Mite) and lower numbers of *Calacarus carinatus* (Purple Mite), but no conclusions could be drawn in respect of *Brevipalpus californicus* (Scarlet Mite).

FERTILIZER AND YOUNG TEA PLANTS

R. R. Selvendran and S. Selvendran have studied uptake of nitrogen, applied as ammonium sulphate, the rate of movement of this nitrogen within the plant, and the rate of depletion of nitrogen in the soil. The ammonium nitrogen undergoes transformation to nitrate nitrogen in the soil. It would be interesting to investigate to what extent the response of various tissues to applied fertilizer nitrogen and the increase in fresh weight of the shoot system are correlated with the depletion of ammonium nitrogen from soil. This article is presented here by courtesy of the Authors and the Editors of *The Annals of Botany*.

DISTRIBUTION OF NITROGEN COMPOUNDS IN THE TEA PLANT

In another article, the Selvendrans describe the results of their experiments where they examined leaves, bark and wood of stems and roots, feeder roots, and the pericarp and cotyledons of tea fruits in order to investigate the distribution of nitrogenous compounds in tea plant tissues. The major amino acid in tea is theanine which is present in every organ except fruits. Glutamic acid, aspartic acid and glutamine were present in all organs in high concentrations. They discovered that pipercolic acid is present in appreciable quantities only in fruits. This information will provide a good background for studying various physiological changes that take place in tea tissues. This work is presented by courtesy of the Authors and the Editors of *The Journal of the Science of Food and Agriculture*.

TEA CLONES AFFECTED BY STEM CANKER

Macrophoma theicola is a fungus widely present in the low-country of Sri Lanka. It is a weak parasite that seems to prefer some tea clones rather than others. The best of the low-country clones are all susceptible but the severity of damage is such that the planting of these clones is still justified.