In general, the autotetraploid was characterised by larger, thicker and succulent leaves, larger stomata and pollen grains. But the number of stomata per unit area and mean pollen fertility were lower than the normal diploid.

Meiosis was studied in the polyploid plant by fixing flower buds of appropriate size in 1 : 3 acetic alcohol. Chromosome counts made from anther smear preparations, stained with 2% aceto-carmine, revealed the autotetraploid nature of the plant, with $2n = 96$ chromosomes as against $2n = 48$ in the normal diploid. A total of 41 cells were scored at Metaphase I and Anaphase I, to study the chromosome behaviour. The frequency of quadrivalents and trivalents was much less compared to bivalents and univalents. The mean chromosomal configurations per cell were : quadrivalents 0·31, trivalents 0·052, bivalents 34·84 and univalents 25·21. In spite of large number of univalents observed during Metaphase-I, fairly high degree (68%) normal disjunction of chromosomes to 48 : 48 was noticed during Anaphase-I, resulting in high percentage of fertile pollen. However, laggards were also observed at Anaphase-I.

The autotetraploids of *Basella alba* appears to be interesting in view of its high pollen fertility, more thick and succulent leaves. Besides, it can be propagated vegetatively also. Further studies on breeding behaviour and critical evaluation of autotetraploid are in progress.

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Cytogenetics Section, Univ. of Agril. Sciences, Hebbal, Bangalore, *June* 26, 1974.

G. PUSHPA.
K. M. D. NAYAR.
H. S. HANUMANTHAPPA.

1. Gamble, J. S., *Flora of Presidency of Madras*, 1928, p. 3.

ANNOUNCEMENTS

Award of Research Degrees

Karnatak University, Dharwar, has awarded the Ph.D. degree in Mathematics to Shri Hegde Venkatramana Subraya, for his thesis entitled "Topics in Global Differential Geometry with special reference to Integral Formulae and their applications"; and to Shri Subhas Sangayya Bhusnoormath, for his thesis entitled "Exceptional Values of Meromorphic Functions"; Ph.D. degree in Chemistry to Shri Gurusiddhayya Shivayya Gadaginamath and Shri Muralidhar Gurachar Purohit, for their thesis entitled "Synthetic Studies in the Indole Field" and "Studies in the Indole Field," respectively.

The M. S. University of Baroda has awarded the Ph.D. degree in Geology to Shri Ramachandra Anant Chansarkar, for his thesis entitled "Drainage and Slope Analysis of Kosi Basin in Central Kumaon with Special Reference to the Geological Controls"; Ph.D. degree in Chemistry to Shri Dineshchandra Ochhavlal Shah, for his thesis entitled "Synthesis of Phenanthro Indolizidines and Nitrogen Mustards as Anti Cancer Agents";

Sri Venkateswara University, Tirupati, has awarded the Ph.D. degree in Mathematics to Shri J. Hanumanthachari, for his thesis entitled "Some Contributions to the Theory of Arithmetic functions"; Ph.D. degree in Physics to Shri V. Kesava Reddy, for his thesis entitled "Studies in Solid State Physics Third-order elastic muduli of Carbon and Alloy Steels"; Ph.D. degree in Zoology to Shri P. Murali Mohan, for his thesis entitled "Studies on the Physiological and Bio-chemical aspects of aestivation of a selected gastropod, with special reference to nervous system; Ph D. degree in Botany to Shri K. Subramanya Sastry, for his thesis entitled "Studies on Mosaic Virus Disease of Brinjal incited by a strain of tobacco ring spot virus".

Utkal University, Bhubaneswar, has awarded the Ph.D. degree in Physics to Shri M. K. Parida, for his thesis entitled "Description of High Energy Phenomenan"; Ph.D. degree in Chemistry to Smt. Nivedita Mullick, for her thesis entitled "Reactivity of Co-ordinated Ligands"; Ph.D. degree in Botany to Shri Ch. Narasinga Rao and Shri S. N. Ratho, for their thesis entitled "Physiological studies on Tillering Potential in Rice" and "Cytogenetical studies on African cultivated rice (*Oryza glaberrima* Steud) with special reference to the Exploitation of this germplasm" respectively; Ph.D. degree in Zoology to Shri Bimbadhar Nayak, for his thesis entitled "Studies on the Male Germinal Chromosomes of thirty-one species of moths and butterflies (*Lepidoptera*)".

Tamil Nadu Agricultural University, Coimbatore, has awarded the Ph.D. degree in Agriculture to Shri A. Abdul Kareem, for his thesis entitled "Studies on the Antifeeding effects of two organotin compounds, triphenyltin acetate and triphenyltin hydroxide on *Spodoptera litura F., Periclla ricini* F. and *Spomopteryx subsecivella* Zell (Lepidoptera); to Shri M. Gopalan, for his thesis entitled "Studies on Feeding behaviour of Salivary secretions of ragmus importunitas distant (Hemiptera : Miridae) and its influence of the physiology of Sunnhemp, *Crotolaria juncea* L."; to Shri K. R. Ramaswamy, for his thesis entitled "Studies in the *Genus cenchrus* L.".