

BIBLIOGRAPHY ON ARECANUT

TECHNICAL BULLETIN No. 1



Central ArecaNut Research Station
VITTAL, MYSORE STATE, INDIA.

1967

BIBLIOGRAPHY ON ARECANUT

[UP TO DECEMBER 1966]

COMPILED BY:

P. R. RAMACHANDER



K. V. AHAMED BAVAPPA

Central Areca Nut Research Station
VITTALE, MYSORE STATE, INDIA.
1967

FOREWORD

Arecanut is one of the important commercial crops of this country. Though not considered a necessity from the food point of view, it is extensively used in all parts of the country by the rich and the poor alike and figures prominently in our religious and social lives. It does not have any export value as the production in the country has not been sufficient to meet even the internal demand. Till recently a considerable amount of arecanut was being imported to meet the internal demand which meant drainage of foreign exchange. There is thus a clear case for increasing the production of the commodity within the country, but as it is mainly grown in States like Kerala, Mysore, etc. where the possibility of increasing production through expansion of area is rather remote and also going by the fact that any available area should preferably be diverted for production of food crop, any upward rise in production of arecanut to meet the country's needs must come through getting more from the present area and present palms. This, in turn, calls for extensive research whereby both the quality as well as the yield per palm could improve. There have been some researches in the various problems relating to arecanut production, control of pests and diseases, etc. in the past, but the impact thereof has not so far been sizable. In fact, problems like yellow leaf disease affecting certain zones have become rather acute in the recent past. Accordingly, going by the C. A. R's approach to agricultural research, it is pro-

posed to introduce an All India Coordinated Project on arecanut so as to cover all the problems affecting increased production and improvement of quality of this crop.

In the above context, bringing out reference material of the type presented here by Shri P. R. Ramachander and Shri K. V. Ahamed Bavappa is of considerable utility. The importance of such a reference work in research needs no emphasis as it furnishes the platform on which future research is to be erected. The authors therefore, deserve full credit for bringing out this publication.

J. C. A. R. NEW DELHI

30th May 1967

B. P. PAL

DIRECTOR-GENERAL

INTRODUCTION

The year 1966 marks the completion of a decade of existence of this Research Station. Though this is relatively a short period for an Agricultural Research Station particularly one dealing with perennial crops like arecanut to make a mark in the field of research contribution, results of practical utility relating to mother palm and seedling selection and pests and disease control achieved so far have already been passed on for extension. Planning of the long term investigations and implementing the same have been the other main activities of the Station during these years of its existence. In such an effort we were feeling the need for having an upto-date bibliography on this crop. To fill this gap and also to commemorate the 10th anniversary of the establishment of this Research Station, this bibliography on arecanut has been brought out.

The Research Station which is the only one of its kind to work on arecanut has on its programme [1] solving the regional problems confronting the arecanut industry, [2] conducting fundamental and applied research on Botany, Agronomy, Statistics, Chemistry, Physiology, and Pests and diseases of the crop, [3] guiding and co-ordinating the research carried out at the Regional Arecanut Research Stations in India and [4] serving as a centre of information on all matters relating to the crop. This Station was established by the Indian Central Arecanut Committee in 1956 and has a farm of 57.67 ha. in extent.

The bibliography has 615 entries contributed by 3 authors. These have been checked up with the originals as far as possible. The titles have been arranged under 11 groups. All the entries have been serially num-

bered. One author index has also been appended. Abbreviations to periodicals are given as per the World List of Scientific Periodicals. However, in the case of the abbreviation I.C.A.C. (Indian Central Arecanut Committee) the same has been adopted as a deviation from this international list. Being the first compilation it is quite likely that a few references would have been missed. It is also not unlikely that a few errors might have crept in. To have them corrected, we shall appreciate receiving suggestions from readers.

The services rendered by the Research staff of the Central and Regional Arecanut Research Stations in the compilation of this bibliography are gratefully acknowledged. We owe a debt of gratitude to Shri T. T. Paulose, Deputy Director, Regional Office (Arecanut and Spices Development) Calicut for making available the library facility and to Shri V. S. Govindarajan, Scientist, Central Food Technological Research Institute, Mysore for critically going through certain sections.

The compilers wish to record their grateful thanks to Dr. B. P. Pal, Director-General, Indian Council of Agricultural Research for encouragement.

C. A. R. S., VITTAL,
1st September, 1967

P. R. RAMACHANDER
K. V. AHAMED BAVAPPA

CONTENTS

	Page
A. GENERAL ..	1
B. HISTORY ..	5
C. AGRONOMY ..	7
D. BOTANY ..	13
E. CHEMISTRY ..	21
F. TECHNOLOGY ..	24
G. PHARMACOLOGY ..	27
H. PESTS ..	30
I. DISEASES ..	34
J. MARKETING ..	40
K. STATISTICS ..	44
AUTHOR INDEX ...	i-vi

A. GENERAL.

1. Anon. *Webster's New International Dictionary of English Language*. London, 1927, 346.
2. Anon. *Hand Book of Commercial Information for India*. New Delhi, 1937, 349-351.
3. Anon. *Report of the Progress of Agriculture in Mysore*. Bangalore, 1939.
4. Anon. *The Wealth of India, 1*. New Delhi, 1948, 109-114.
5. Anon. A brief note of areca industry in Mysore. *Mysore Agricultural Calendar*, 1949-50:54-57. *I. C. A. C. mont. Bull.*, 1952, 3 (4):54-56.
6. Anon. Judge your trees in areca garden. *I. C. A. C. mont. Bull.*, 1952, 3 (1):4-5.
7. Anon. *Arecanut*. Leaflet No. 55, Department of Agriculture, Ceylon, 1953.
8. Anon. The drying of Arecanuts. *I. C. A. C. mont. Bull.*, 1953, 3 (9):127-129.
9. Anon. *Memoirs of Department of Agriculture*. Madras, 1954, 1320.
10. Anon. Areca extract—a good mosquito larvicide. *Arecanut Bull.*, 1954, 5 (6):89.
11. Anon. Grow more arecanut. *Arecanut Bull.*, 1955, 6 (4): 59-69.
12. Anon. *Annual Report of the Indian Central Arecanut Committee*. Calicut, 1949-50 to 1964-65.
13. Anon. *Annual Report of the Central Arecanut Research Station, Vittal*. Calicut, 1958-59 to 1963-64.
14. Anon. *Annual Report of the Regional Arecanut Research Station, Kannara*. Calicut, 1959-60 to 1963-64.
15. Anon. *Annual Report of the Regional Arecanut Research Station, Palode*. Calicut, 1959-60 to 1963-64.
16. Anon. *Annual Report of the Regional Arecanut Research Station, Hirehalli*. Calicut, 1959-60 to 1963-64.
17. Anon. *Annual Report of the Regional Arecanut Research*

Station Kahikuchi. Calicut, 1959-60 to 1963-64.

18. Anon. *Annual Report of the Regional Arecanut Research Station, Mohitnagar.* Calicut, 1959-60 to 1963-64.
19. Anon. *Annual Report of the Regional Arecanut Research Station.* Thirthahalli. 1952-53 to 1963-64.
20. Anon. *Arecanut Atlas.* Calicut, 1958.
21. Anon. *Pan Chewing.* I. C. A. C. Leaflet, Calicut.
22. Bailey, L. H. *The Standard Cyclopedias of Horticulture.* New York, 1922.
23. Balfour, E. *The Cyclopedias of India and Eastern and South East Asia.* London, 1885, 151-52.
24. Bavappa, K. V. A. Supari has a substitute. *Indian Fmg.*, 1966, 16 (9):4-5.
25. Bavappa, K. V. A. and Murthy, K. N. Potentialities of areca stem and leaves. *Arecanut J.*, 1959, 10 (2): 61-64.
26. Bavappa, K. V. A. and Murthy, K. N. The many things that they make from areca. *Indian Fmg.*, 1961, 10 (10): 19, 40.
27. Bhargava, N. M. Arecanut in India. *Agric. Situat., India*, 1954, 8: 801-808.
28. Blatter, E. *Flora Arabica*, 8. London, 1936, 469.
29. Burkill, *A Dictionary of Economic Products of Malaya Peninsula*, 1. London, 1935, 222-30.
30. Burnet, Die palmen Arabiens. *Bot. Jahr. Syst.*, 1943, 73: 175-190.
31. Burns, W. *The Progress of Agricultural Research in India.* New Delhi, 1939, 11-12.
32. Chakravarthy, J. Arecanut in West Bengal and possibility of its improvement. *Arecanut Bull.*, 1954, 5 (9): 130-133
33. Chowdry, S. Some observations on the betelnut (*Areca catechu*) palm. *Allahabad Fmr.*, 1946, 20:64-67.
34. Dorasami, L. S. A brief note on areca industry in Mysore

- State. *Arecanut J.*, 1956, 7 (3) : 58-61.
35. Ferguson, J. *All about arecanut palm*. Colombo, 1907.
36. Grist, D. H. *An Outline of Malayan Agriculture*. Kula-lampur, 1936, 175-181.
37. Hrishikesan Nair, N. The use of arecanut palm and its nuts. *I. C. A. C. mont. Bull.*, 1951, 1 (10) : 5-7.
38. Iyer, A. K. Y. *Field Crops of India*. Bangalore, 1947, 521-550.
39. Lushington, A. W. *Vernacular List of Trees, Shrubs and Woody Climbers in Madras Presidency*, 2 A. Madras, 1915.
40. Macmillan, H. F. *Tropical Planting and Gardening*. New York, 1962.
41. Maheswari, P. and Umrao Singh. *Dictionary of Economic Products of India*. New Delhi, 1965, 14.
42. Marudarajan, D. The need for improvement of Areca nut plantation in South Kanara. *I. C. A. C. mont. Bull.*, 1950, 1 (6) : 7-9.
43. Meenakshi, S. When arecanut reduced the desire for alcohol. *Arecanut J.*, 1957, 8 (4) : 99-100.
44. Milsum, J. N. Local arecanuts. *Malaya. Agric. J.*, 1938, 26 (2) : 59-63.
45. Molegode, W. The arecanut in Ceylon. *Trop. Agric., Trinn.*, 1944, 2 : 102-105.
46. Murthy, K. N. Romance of betelnut. *The Assam Tribune, Magazine Section*, 1965.
47. Naidu, G. V. B. *Thambula Manjari*, Mysore, 1963.
48. Naidu, G. V. B. *Adike*. Mysore, 1965.
49. Nair, M. C. There is cash in arecanut. *Extension*, 1962, 2 (4) : 14-16.
50. Nambiar, K. K. *A Survey of Areca nut Crop in Indian Union*, Calicut, 1949.
51. Nambiar, K. K. Areca nut Industry in Kerala. *I.C.A.C. mont. Bull.*, 1951, 1 (8) : 1-8.

52. Nambiar, K. K. Arecanuts in India. *I. C. A. C. mont. Bull.*, 1952, 2 (9) : 103-105.
53. Nambiar, K. K. Processing of tender arecanuts in Ponnani taluk (South Malabar). *I. C. A. C. mont. Bull.*, 1953, 4 (1) : 1-6.
54. Nambiar, K. K. *Arecanuts in Malaya*. Calicut, 1954.
55. Nambiar, K. K. Andamans as I saw it. *Arecanut Bull.*, 1954, 5 : 81-84.
56. Nambiar, K. K. Grow more arecanuts. *Arecanut Bull.*, 1955, 6 : 59-60.
57. Neal, M. C. *In the Gardens of Hawaii*. Honolulu, 1948.
58. Omprakas. *Supari Udyog*. Delhi.
59. Paulose, T. T. Grow arecanut the scientific way. *Cocon Bull.*, 1965, 19 (5) : 137-146.
60. Paulose, T. T. The Indian arecanut Industry—A retrospect. *Planting and Commerce*, 1965 Annual Number.
61. Paulose, T. T. Areacnut industry in India. *Commerce*, 1965 Annual Number
62. Paulose, T. T. Areacnut industry. *Times of India year book*, 1965
63. Petelot, N. M., Frontou, L. and Carton, P. Note Surl'aréquier en Indochine. *Bull. Econ. Indochine*, 1926, 21 : 321-326.
64. Plippance, F. Betel gardens. *Strait Settlement Bulletin*, 1920, 2 : 204-300.
65. Raghavan, V. and Baruah, H. K. On arecanut and its scope. *Sci. & Cult.*, 1956, 22 : 150-153. *Arecanut J.*, 1957, 8 (1) : 5-10.
66. Raghavan, V. and Baruah, H. K. Areacnut—India's popular masticatory, History, Chemistry and Utilisation. *Econ. Bot.*, 1958, 12 (4) : 315-345.
67. Sangal, P. M. Areacnut in Nicobars. *Arecanut J.*, 1963, 16 (1) : 10-12.
68. Sarma, C. S. S. Pan chewing in moderation is good. *I. C. A. C.*

mont. Bull., 1953, 4 (3) : 39-42.

69. Shetty, K. T. A Study of arecanut production in south India. *Madras Agric. J.*, 1949, 36 : 163-177.
70. Sreenivasan, P. A. Report of survey of waste lands suitable for development of arecanut cultivation. *Arecanut Bull.*, 1955-56, 6 : 98-100, 113-116, 129-133, 149-155, 164-170, 187-197, 206-222.
71. Subbanna, K. V. *Navu Tinnuva Adike*. Mysore, 1953.
72. Sundaramurthy, S. Areca nut Plantation in Ceylon. *I.C.A.C. mont. Bull.*, 1950, 1 (6, 7) : 1-5.
73. Tackholm, V. and Dhar, M. *Flora of Egypt*, 2. London, 1950.
74. Turner, L.B.J. *Handbook of Commercial and General Information of Ceylon*. Colombo, 1922, 74-75.
75. Varadarajan, B. S. Areca nut research and development in India *Arecanut J.*, 1957, 8 (3) : 52-59.
76. Varadarajan, B. S. Areca's problems have been brought into focus. *Arecanut J.*, 1961, 12 (3) : 123-128.
77. Venkatakrishna Rao, V. Betel chewing. *I. C. A. C. mont. Bull.*, 1952, 3 (3) : 31-37.
78. Venkateshwaran, P. A. *Agriculture in South India*. New Delhi, 1961, 191-193.

B. HISTORY.

79. Agharker, S. P. *Gazetteer of Bombay State. 1 — Medicinal Plants*. Bombay, 1953.
80. Buchanan, F. *A Journey Through the Countries of Mysore, Canara and Malabar*. London, 1807.
81. Chidambaran Iyer, N. *Brihat Samhita of Varaha Mihira* (English Translation). *Arecanut Bull.*, 1954, 7 (2) : 30-31.
82. Evans, F. B. *Madras District Gazetteer—Malabar*. Madras,

- 1951, 221-222.
83. Gode, P. K. Nut Cracker. *B. I. C. Mandal quarterly*, 1948: 8-14.
84. Gode, P. K. Studies in the history of tambula outside India between A. D. 650-1900. *J. Travancore University Oriental Library*, 1950, 6:1-4.
85. Gode, P. K. History of lime and catechu in tambula. *Shri Chandabai memorial Volume*, 1950.
86. Gode, P. K. Studies in the history of tambula. History of verse about the 13 qualities of tambula between A. D. 1200-1900. *Annals of Bhandarkar Oriental Research Institute*, 1951, 31:138-142.
87. Gode, P. K. Some words for the nut cracker. *V. A. K.*, 1951, 1:1-4.
88. Gode, P. K. Studies in the history of tambula—The attitude of Hindu Dharma Shastras towards tambula bhogha. *J. Oriental Institute*, March, 1952:1-8.
89. Gode, P. K. Studies in the history of tambula—Use of lime and catechu in tambula and its antiquity A. D. 100-1900. *The Saradha Satabdi Commemoration Volume*, 1954.
90. Gode, P. K. Beliefs associated with the number of ingredients in tambula. *Journal of Gauhati University*.
91. Griffith, W. *A Journal of Travels in Assam, Burma, Prostan, Afganistan and Neighbouring Countries*. London, 1847.
92. Hrishi. A note on chewing of arecanut in different parts of the world. *I. C. A. C. mont. Bull.*, 1951, 2(1): 3-5.
93. Ishwara Bhat, P. S. and Rao, K. S. N. On the antiquity of arecanut. *Arecanut J.*, 1962, 13(2):13-21.
94. Kalidas Nag. *India and the Pacific World*. London, 1941.
95. Lebern, G. Betel chewing. *Journal of Oriental Research*, 1948. 8 (3): 165-171. *I. C. A. C. mont. Bull.*, 1953, 3. (7): 95-100.

96. Leela Sachdev K.wai (Betel) among the Khasis. *The Eastern Anthropologist*, 1957, 11 (2) : 107-112.
 97. Murthy, K. N. Betelnut in the social life of people of Assam. *Arecanut J.*, 1963, 14 (2) : 155-158.
 98. Naidu, G. V. B. *Arecanut in Mysore—its Origin and Development*. Tumkur, 1965.
 99. Pade, J. S. *Tambula Manjari*. Baroda, 1958.
 100. Pade J. S. Tambula Manjari. *I.C.A.C. mont. Bull.*, 1953, 3 (10) : 140-144.
 101. Penzer, N. M. *Poison Damsels and other Essays in Folklore and Anthropology*. London, 1952, 187-300.
 102. Ruth Benedict. *Patterns of Culture* New York, 1953.
 103. Sturrock. *South Kanara—Madras District Manual*, 1. Madras.
 104. Sundara Sastri, P. Gleanings from arecanut literature in chewing. *I. C. A. C. mont. Bull.*, 1952, 3 (6) : 81-83.
-

C. AGRONOMY.

105. Abraham, P. Spices as intercrops in arecanut gardens. *Arecanut J.*, 1956, 7 (3) : 56-58.
106. Anon. Lasting effect of trench manuring. *I. C. A. C. mont. Bull.*, 1951, 2 (4) : 42-43.
107. Anon. Diary of an arecanut planter for Malabar for Februray. *I. C. A. C. mont. Bull.*, 1954, 4 (7) : 95-96.
108. Anon. Broad hints on arecanut cultivation. *Mysore Agricultural Calendar*, 1954 : 10-15.
109. Anon. Guide note on cultivation of arecanut. *Arecanut Bull.*, 1956, 7 : 179.
110. Anon. A note on parent locality, parent palms and seed selection and technique of raising arecanut nursery. *Arecanut J.*, 1956, 8 (1) : 12-13.
111. Anon. Arecanut cultivation and its uses in foreign ountries

- Arecanut J.*, 1958, 9 (2) : 51-56.
112. Anon. Simple manurial trials on arecanut in ryots' gardens. *Arecanut J.*, 1958, 9 (1) : 17-19.
113. Anon. *Progress Report of the Scheme for Establishment of Certified Arecanut Nurseries at Village Centres*. Calicut, 1961.
114. Anon. *Report of the Pilot Scheme for the Study of Cost of Cultivation of Arecanut in Mysore State*. Calicut, 1962.
115. Anon. *Flip Book on Arecanut Cultivation*. Calicut.
116. Anon. *Annual Reports of Simple Manurial Trials in Arecanut Gardens*. Calicut, 1958-59 to 1964-65.
117. Anon. *Seednut Selection and Raising of Arecanut Seedlings*. nut. I. C. A. C. Leaflet, Calicut.
118. Anon. *Model Programme for Intensive Cultivation of Areca-nut* I. C. A. C. Leaflet, Calicut.
119. Anon. *Manuring of Arecanut*. I. C. A. C. Leaflet, Calicut.
120. Anon. *Manures and Fertilizers - Manurial formula for Principal Crops of Mysore State*. Mysore.
121. Badami, V. K. Arecanut Cultivation near Thirthahalli, Shimoga District. *Arecanut Bull.*, 1955, 6 (1) : 3-5.
122. Bavappa, K. V. A. Some common intercrops in Arecanut gardens. *I. C. A. C. mont. Bull.*, 1951, 2 (2) : 16-17.
123. Bavappa, K. V. A. Merits of different nursery practices in Arecanut cultivation. *Arecanut J.*, 1956, 7 (3) : 61-63.
124. Bavappa, K. V. A. Field experimentation in arecanut — 1. *Arecanut J.*, 1959, 10 (3) : 116-122.
125. Bavappa, K. V. A. Spot lights on arecanut cultivation in Maharashtra State. *Arecanut J.*, 1964, 15 (3) : 119-122.
126. Bavappa, K. V. A. and Abraham, K. J. Influence of seed weight on the quality of seedlings in arecanut. *Arecanut J.*, 1961, 12 (3) : 129-135.
127. Bavappa, K. V. A. and Abraham, K. J. Studies on the yield of arecanut palm. *Arecanut J.*, 1961, 12 (4) : 195-199.

128. Bavappa, K. V. A. and Mathew, T. Effect of different spacings on quality of arecanut seedlings. *Arecanut J.*, 1960, 11 (1):3-8.
129. Bavappa, K. V. A., Patel, G. I. and Ghose Mohiyuddin. Existing state of arecanut gardens and the possible ways of their rejuvenation. *Arecanut J.*, 1958, 9 (2) :46-50.
130. Bavappa, K. V A., Patel, G. I. and Shama Bhat, K. Germination and vigour of seedlings as influenced by quality of seed arecanut. *Arecanut J.*, 1957, 8 (2): 27-31.
131. Bavappa, K. V. A. Ramachander, P. R. and Velappan, E. Correlation studies in *Areca catechu* Linn.—I. Time of germination, Bartlett's index, vigour of sprouts and seedlings. *Arecanut J.*, 1964, 15 (2):62-66.
132. Bhatkal, R. A note on selection of mother palms of arecanut and selection of seednuts. *Lalbaugh, India*, 1965, 10 (1) : 12-14.
133. Bhatkal, R. A note on nursery technique in arecanut. *Lalbaugh, India*, 1965, 10 (2): 13-21.
134. Coleman, L. C. and Venkatrao, M. K. *The Cultivation of Areca Nut Palm in Mysore*. Mysore, 1918.
135. Iswara Bhat, P. S. Raising arecanut seedlings. *Arecanut J.*, 1962, 13 (1):244.
136. Iswara Bhat, P. S. Angular planting of areca palms. *Arecanut J.*, 1965, 16 (4):3-5.
137. John, T. J. Green manuring for arecanut plantation *I.C.A.C mont. bull.*, 1952, 3 (1):1-4.
138. Kalbande, A. R. The role of liming in soil fertility. *Arecanut J.*, 1965, 16 (3):8-12.
139. Kelkar, N. V. The betelnut palm and its cultivation in North Kanara. *Poona Agricultural College Magazine*. 1915, 7 (1).
140. Khandige, S. B. The influence of drying on germination of seed arecanuts. *Madras agric. J.*, 1956, 43:3-6.

141. Khandige, S. B., Balakrishna, N. and Adyanthaya, N. R.
Some facts about arecanut. *Madras agric. J.*, 1956,
43 (9): 456-463. *Arecanut J.* 1956, 7 (2) : 29-33.
142. Krishnamurthy, K. About wooded lands and areca gardens. *Indian Fmg.*, 1957 December. *Arecanut J.*, 1957,
8 (4): 90-91.
143. Krishnamurthy, K. The need for wooded lands (Soppina betta) for areca gardens. *Mysore agric. J.*, 1957, 32
(2): 76-81.
144. Krishnappa, K. T. Growing green manure and cover crops in arecanut gardens in Malanad tract. *Arecanut J.*,
1962, 13 (4): 129-132.
145. Krishnappa, K. T. Liming of arecanut gardens in Malanads. *Arecanut J.*, 1964, 15 (2) : 74-77.
146. Krishnappa, K. T. Renovation of existing arecanut gardens *Lalbaugh, India*, 1965, 10 (1) : 5-7.
147. Lakshmanachar, M. S., Biddappa, K. G. and Paulose, T. T.
Simple manurial trials of arecanuts in ryots gardens. *Agric. Sitaut., India*, 1967, 21 (4) ; 441-450.
148. Mollison. *Cultivation of Betel Palm, Cardamom and Pepper in Kanara*. Mysore agricultural department Bulletin,
20, Mysore, 1900.
149. Murthy, K. N. and Bavappa, K. V. A. In Malanad arecanut growing is an expert's job. *Indian Fmg.*, 1960,
9 (10): 29-30.
150. Murthy, K. N. and Bavappa, K. V. A. Arecanut Cultivation in Malanad. *Jagarathi*, 1960.
151. Naidu, G. V. B. Betel-wine cultivation in arecanut Garden and its benefits. *Arecanut J.*, 1959, 9 (4): 128-130.
152. Naidu, G. V. B. Effect of shock on arecanut seed germination. *Arecanut J.*, 1961, 12 (2) : 84-87.
153. Naidu, G. V. B. *Arecanut Cultivation*. Department of Agriculture, Mysore, 1961.
154. Naidu, G. V. B. Sugarcane as a shade-cum-inter crop to arecanut. *Arecanut J.*, 1961, 12 (4) : 191-194.

155. Naidu, G. V. B. and Mashalkar, S. R. Providing shade to arecanut-I (nurseries). *Arecanut J.*, 1961, 12 (2): 79-83.
156. Naidu, G. V. B., Kumar, S. N. S. and Sannamarappa, M. Weeds in arecanut gardens in Maidan parts of Mysore state and their control by use of weedicides. *Arecanut J.*, 1964, 15 (2): 67-73.
157. Nair, P. K. S. Simple manurial trials on arecanut in ryots gardens. *Arecanut J.*, 1963, 14 (1): 16-17.
158. Nambiar, K. K. The importance of seednut selection in arecanut. *I. C. A. C. mont. Bull.*, 1951, 1 (9): 1-3.
159. Nambiar, K. K. Arecanut cultivation in Mettupalayam. *I. C. A. C. mont. Bull.*, 1951, 1 (9): 3-6.
160. Nambiar, K. K. Cultivation of arecanut in Mysore State. *I. C. A. C. mont. Bull.*, 1951, 1 (11): 1-7.
161. Nambiar, K. K. Arecanut cultivation in Coorg. *I. C. A. C. mont. Bull.*, 1952, 2 (12): 141-146.
162. Nambiar, K. K. Arecanuts in Assam. *I. C. A. C. mont. Bull.*, 1952, 3 (5): 69-72.
163. Nambiar, K. K. Broad hints on arecanut cultivation. *I. C. A. C. mont. Bull.*, 1952, 3 (11): 158-164.
164. Nambiar, K. K. Possibilities of arecanut cultivation in Andamans. *Arecanut Bull.*, 1954, 5 (5): 65-67.
165. Nambiar, K. K. Manuring of arecanut plantations. *Mysore Agricultural Calendar*, 1955: 65-66.
166. Nambiar, K. K. and Sreenivasan, P. A. Arecanut cultivation in West Bengal. *Arecanut Bull.*, 1955, 5 (8): 114-117.
167. Nambiar, K. K. and Sreenivasan, P. A. Economics of Arecanut cultivation. *Arecanut Bull.*, 1955, 5: 84-87, 98-100, 117-120.
168. Narasimha Iyengar. Manuring of areca palms. *Arecanut Bull.*, 1955, 5 (11): 162-166. *Mysore agric. J.*, 1956, 31 (1): 14-28.
169. Narasimha Iyengar. Areca manurial experiments in Maruthur

Farm. *Journal of Mysore Agricultural and Experimental Union* 1928, 9:8-11.

170. Panikkar, M. A. *Co-ordination of Agricultural Research in India—Agronomy*. New Delhi, 1960, 48-51.
171. Parameshwar, N. S. Germination of seed arecanuts. (*Areca catechu* Linn.). *Sci. & cult.* 1962, 28:135-136.
172. Paul, S. C. On arecanut seedlings raising at the sub-Himalayan region of West Bengal. *Arecanut J.*, 1960, 10 (4): 166-173.
173. Paul, S. C. Cultivation of arecanut in Sub-Himalayan region of Bengal and some suggestions for improvement of existing methods. *Arecannt J.*, 1963, 14 (2):64-67.
174. Paul, S. C. and Bunia, S. N. A note on comparative efficiency of implements for the purpose of inter cultural operations for arecanut nurseries at sub-Himalayan West Bengal. *Arecanut J.*, 1960, 11 (3): 109-111.
175. Pillai, S. S. and Biddappa, K. G. Manurial trials on arecanut in ryots gardens. *Proceedings of symposium on Radio isotopes, Fertilisers and Cowdung gas plant*. New Delhi, 1959.
176. Revappa, B. A. Arecanut cultivation in Chitradurga Taluk (Mysore State). *I. C. A. C. mont. Bull.*, 1953, 4 (4): 54-59.
177. Saidalikutti, K. Cultivation of arecanut in Kerala. *I.C.A.C. mont Bull.*, 1952, 2 (5):55-57.
178. Shama Bhat, K. Calendar of operations in arecanut gardens of Kanara. *I. C. A. C. mont. Bull.*, 1952, 2 (7) : 81-83.
179. Shama Bhat, K. Why not areca growers also grow green manures. *Arecanut Bull.*, 1956, 6 (11):196-197.
180. Shama Bhat, K. Impressions of a tour of the areca gardens of South Kerala and some suggestions for improving the gardens. *Arecanut J.*, 1963, 14 (4): 165-167.
181. Sonde, V. S. Present manurial practice and possibility of introducing green manuring in areca gardens of North

- Kanara. *Arecanut Bull.*, 1955, 6 (5) : 77-81.
182. Sreenivasan, P. A. Quality arecanut seedlings. *I. C. A. C. mont. Bull.*, 1951, 2 (3) : 30-31.
183. Sreenivasan, P. A. Manuring of Arecanut plantations. *I. C. A. C. mont. Bull.*, 1951, 2 (6) : 66-68.
184. Sreenivasan, P. A. The importance of intercultivation in arecanut gardens. *I. C. A. C. mont. Bull.*, 1953, 4 (2) : 18-20.
185. Subbiah Mudaliar, V. T. *Common Cultivated Crops of South India*. Madras, 1955, 505-515.
186. Varadarajan, B. S. Scope of arecanut cultivation in Assam. *Arecanut J.*, 1958, 9 (2) : 41-45.

D. BOTANY.

187. Abraham, A., Mathew, P. M. and Ninan, C. A. Cytology of *Cocos nucifera* L. and *Areca catechu* L. *Cytologia, Tokyo*, 1961, 26 : 327-332.
188. Adyanthaya, N. R. and Shama Bhat, K. Occurrence of bisexual flowers in arecanut. *Madras agric. J.*, 1955, 42 (11) : 484-485.
189. Andy, P. S. On branched palms in Southern India. *Trans. Linn. Soc.*, 1870, 26 : 661-662.
190. Anon. Areca nut in Philippines. *I.C.A.C. mont. Bull.*, 1952, 3 (4) : 56-59.
191. Anon. Bisexual flowers in arecanut palm. *I.C.A.C. mont. Bull.*, 1953, 4 (6) : 87-88.
192. Anon. *The Dictionary of Gardening*, 1. London, 1956, 108.
193. Bailey, L. H. *Genties Herbarum*. Ithaca, 1946.
194. Bailey, L. H. *Manual of Cultivated Plants*. New York, 1951. 172-173.
195. Bailey, L. H. and Bailey, E. Z. *Hortus Second—A Concise Dictionary of Gardening, General Horticulture and*

Cultivated plants in North America. New York, 1941.

196. Barua, H. K., Raghavan, V. Analysis of factors influencing fruit set and sterility in arecanut (*Areca catechu* L.). Maheswary, P. "Modern Developments in Plant Physiology". New Delhi, 1957 : 115-117.
197. Baruah, H. K. and Raghvan, V. On factors influencing fruit set in arecanut (*Areca catechu* L.) III. Influence of airspora originating from fungi, bacteria, and actinomycetes on the normal course of pollination and fertilisation. *Mycopath. Mycol. app.*, 1957, 10 : 341-347.
198. Bavappa, K. V. A. Morphological and Cytological studies in *Areca catechu* Linn. and *Areca triandra* Roxb. Thesis submitted for M. Sc. (Ag.), Madras Univ., 1963.
199. Bavappa, K. V. A. Correct botanical nomenclature of arecanut. *Sci. & Cult.*, 1964. 30 : 239-240.
200. Bavappa, K. V. A. Morophallogical and anatomical studies in *Areca catechu* Linn. and *Areca triandra* Roxb. *phytomorphology*, 1966, 16 : 436-443.
201. Bavappa, K. V. A. and Murthy K. N. Occurrence of Chlorophyll deficiency in arecanut. *Arecanut J.*, 1959, 10 (2) : 53-57.
202. Bavappa, K. V. A. and Murthy, K. N. Morphology of areca palm—the root. *Arecanut J.*, 1961, 12 (2) : 65-71.
203. Bavappa, K. V. A. and Murthy, K. N. Floral abnormalities in arecanut. *Arecanut J.*, 1961, 12 (2) : 185-190.
204. Bavappa, K. V. A. and Raman, V. S. Cytological studies in *Areca catechu* Linn. and *Areca triandra* Roxb. *J. Indian bot. Soc.*, 1965, 44 : 495-505.
205. Bavappa, K. V. A. Ponnaiya, B. W. X. and Raman, V. S. Cytological studies in *Areca catechu* Linn. and *Areca triandra* Roxb. *Madras agric J.*, 1964, 51 : 362.
206. Beccari, O. The palms of Philippine Islands. *Phillipp. J. Sci.*, 14 : 295-362.
207. Belntham, G. and Hooker, J. D. *Genera Plantarum.*, London, 1862.

208. Bentham, G. and Hooker, J. D. *Species Plantarum.* London, 1813.
209. Blatter, E. *The Palms of British India and Ceylon.* London, 1926, 469-485.
210. Brown, W. H. *Useful plants of the Philippines.* Technical Bull. 10, Department of Agriculture, Manila, 1951. 207-226.
211. Cheenan, A. An abnormal areca palm (*Areca catechu* Linn.). *Curr. Sci.*, 1964, 33 : 188.
212. Cooke, Taylor and Francis. *Flora of Bombay*, 2. London, 1908, 809-810.
213. Cormac. On polystelic roots of certain palms. *Trans. Linn. Soc., Lond. Bot. Ser.*, 1896, 25 : 275-126.
214. Darlington, C. D. and Janaki Ammal, E. K. *Chromosome Atlas of Cultivated Plants.* London, 1945.
215. Darlington, C. D. and Janaki Ammal, E. K. *Chromosome Atlas of Flowering Plants.* London, 1945.
216. Darlington, C. D. and Wylie, A. P. *Chromosome Atlas of Flowering Plants.* London, 1955.
217. Das, N. K. Polyembryony in arecanut (*Areca catechu* Linn.). *Sci. & Cult.*, 1966, 32 (9) : 469.
218. Davis, T. A. Branching in some Indian Palms. *Indian Coconut J.*, 1950, 3 : 135-145.
219. Davis, T. A. Dichotomy in certain branched palms. *Indian Coconut J.*, 1950, 4 (1) : 36-43.
220. Davis, T. A. Aerial layering in *Areca catechu* Linn., Areca-nut. *J.*, 1960, 11 (1) : 9-11.
221. Davis, T. A. Aerial roots of areca palm (*Areca catechu* L.). *Arecnut J.*, 1961, 12 (2) : 72-77.
222. DeCandole, A. *Origin of Cultivated Plants.* New York, 1886, 428.
223. Drabble. On the anatomy of roots of palms. *Trans. Linn. Soc. Lond. bot. Ser.*, 1904 : 427-490.
224. Grist, D. H. The betelnut Industry. *Malaya agric. J.*, 1926,

14 : 219-230.

225. Hart, W. E. Note on some branching palms. *J. Bombay nat. Hist. Soc.*, 1888, 3 : 250-255.
226. Hooker, J. D. *Flora of British India*, 6. London, 1894, 402-412.
227. Hooker, J. D. and Jackson, B. *Index Kewensis*. London, 1895.
228. Hutchinson, J. *Families of Flowering Plants*, 2. London, 1934, 5.
229. Jacob, K. C. Stem fasciation of areca palm. *J. Bombay nat. Hist. Soc.*, 1940, 41 : 907.
230. Kaul, K. N. A classification of palms based on the ground tissue of the stem. *Proc. Twenty second Indian Sci. Congress*, 1935 : 85.
231. Krishnappa, K. T., Murthy, K. N. and Chnnamallappa, H. A pink kernelled type of arecanut. *Arecanut J.*, 1964, 15 (3) : 130-131.
232. Kurz, S. *Flora of British Burma*, 2. Calcutta, 1877, 536-539.
233. Linnaeus, C. *Flora Zeylanica*. London, 1747.
234. Linnaeus, C. *Species Plantarum*. London, 1753.
235. Mahabale, T. S. and Udwadia, N. N. Studies on palms. Part IV—Anatomy of palm roots. *Proc. National Inst. Sci. India.*, 1960, 26 B : 73-104.
236. Marudarajan, D. Fruit-set of arecanut. *I.C.A.C. mont. Bull.*, 1950, 1 : 1-5.
237. McCurrach, J. C. *Palms of the World*. New York, 1959, 10-12.
238. Moore, H. E. Jr. What is in a name? *Areca catechu*. The correct name for betel palm. *Principes*, 1962, 3 : 47-49.
239. Moore, H. E. Jr. Exotic palms of the Western World. II. *Areca langloisiana*. *Principes*, 1962, 6 (3) : 90-96.
240. Moore, H. E. Jr. An annotated check list of cultivated palms. *Principes*, 1963, 7 (4) : 28-32, 104-115.
241. Murthy, K. N. and Bavappa, K. V. A. Abnormalities in areca-nut. *Arecanut J.*, 1959, 10 (3) : 97-107.
242. Murthy, K. N. and Bavappa, K. V. A. Floral biology of Areca (*Areca catechu L.*). *Arecanut J.*, 1960, 11 (2) : 51-55

243. Murthy, K. N. and Bavappa, K. V. A. Breeding in arecanut, *Arecanut J.*, 1960, 11 (2) : 60-61.
244. Murthy, K. N. and Bavappa, K. V. A. Morphology of areca palm—The shoot. *Arecanut J.*, 1960, 11 (3) : 99-102.
245. Murthy, K. N. and Bavappa. K. V. A. Studies on the dispersal of arecanut pollen with special reference to elite seeds. *Arecanut J.*, 1961, 12 (4) : 171-179.
246. Murthy, K. N. and Bavappa, K. V. A. Species and ecotypes (cultivars) of arecanut. *Arecanut J.*, 1962, 13 (3) : 59-78.
247. Naidu, G. V. B. A peculiarity of stem structure in arecanut. *Arecanut J.*, 1959, 10 (2) : 58-59.
248. Naidu, G. V. B. Variation in the external morphology of areca-nut stem. *Arecanut J.*, 1963, 14 (4) : 149-154.
249. Naidu, G. V. B., Kumar, S. N. S. and Sannamarappa, M. Seen a dwarf areca palm? *Indian Fmg.*, 1963, 12 (10) : 16, 67.
250. Naidu, G. V. B., Kumar, S. N. S. and Sannamarappa, M. Areca-nut in Mysore—its origin and development. *Arecanut J.*, 1964, 15 (4) : 173-177.
251. Nair, R. B. Spathe in arecanut. *Arecanut J.*, 1962, 13 (2) : 5-12.
252. Nair, R. B. Pollen grains of *Areca catechu* L. with red and white flowers. *Arecanut J.*, 1965, 16 (3) : 3-4.
253. Nair, R. B. Additions to the abnormalities in arecanut. *Arecanu J.*, 1965, 16 (4) : 12-13.
254. Nayar, P. N. Freaks in arecanut. *Madras agric. J.*, 1943, 31 : 121.
255. Patel, G. I. Scope of arecanut improvement by breeding. *Arecanu. J.*, 1957, 8 (3) : 60-61.
256. Pillai, S. K. and Ambuja Pillai. Root apical organisation in Monocotyledons—Palmae. *Proc. Indian Acad. Sci. (B)*, 1961, 54 : 218-233.
257. Quinsnmbing, E. *Medicinal Plants of the Philippines*. Manila, 1951.
258. Radha Menon and Nair, R. B. Palms of Kerala State. *Indian*

Coconut J., 1963, 16 (4) : 179-195.

259. Raghavan, V. On certain abnormal male flowers in arecanut (*Areca catechu* L.). *Sci. & Cult.*, 1956, 22 : 460-463.
260. Raghavan, V. On certain aspects of the biology of arecanut (*Areca catechu* Linn.) and utilisation of its by-products in Industry, D. Phil., Thesis, Gauhati Univ., 1957.
261. Raghavan, V. and Baruah, H. K. Sterility in arecanut (*Areca catechu* Linn.) I - Studies on pollen grains. *J. Indian Bot. Soc.*, 1956, 35 (2) : 139-151.
262. Raghavan, V. and Baruah, H. K. On factors influencing fruit-set and sterility in arecanut. I-Studies on pollen grains. *Arecanut. J.*, 1956, 7 (3) : 48-55.
263. Raghavan, V. and Baruah, H. K. On ceartain aspects of the morphology of arecanut (*Areca catechu* Linn.). *J. Univ. Gauhati*, 1956. 7 : 23-40. 1956, *Arecanut J.*, 7 (2) : 21-28.
264. Raghavan, V. and Baruah, H. K. On factors influencing fruit-set and sterility in arecanut II—Germination of pollen grains and growth of pollen tubes under the influence of certain auxins, vitamins, and trace elements. *Phyton*, 1956, 7 : 77-88.
265. Raghavan, V. and Baruah, H. K. studies on tannins of arecanut (*Areca cateohu* L.). — Development of the tannin cells. *Phyton*, 1958, 10 : 35-42.
266. Raghavan, V. and Baruah, H. K. Effect of the time factor on stimulation of pollen germination and pollen tube growth by certain auxins, vitamins and trace elements. *Physiol. Plant*, 1959, 12 : 441-451.
267. Raghavan, V. and Murthy, K. N. Occurrence of bisexual flowers in an arecanut palm. *Sci. & Cult.*, 1955, 20 : 239.
268. Rama Rao. *Flowering Plants of Travancore*. 1941, 419-423.
269. Rau, M. K. V. The sweet arecanut (*Areca catechu* L. var. *deliciosa*). *J. Bombay nat. Hist. Soc.*, 1915, 23 : 793.
270. Rendle. *The Classification of Flowering Plants*. Loddon,

1930, 259.

271. Richaria, R. H. *Plant Breeding and Genetics in India*. Patna, 1945, 353.
272. Ridley, H. N. Branching in palms. *Ann. Bot.*, 1907, 21 : 415-422.
273. Ridley, H. N. *Flora of Malay Peninsula*, 5. Kulalampur, 1925, 4.
274. Roxburgh, W. *Plants of the Coast of Cormandal*, 1. London, 1795, 54, 75.
275. Roxburgh, W. *Flora Indica*, 3. London, 1832, 615-621.
276. Sands, W. N. Observations on the betelnut palm and the betel-nuts. *Malaya agric. J.*, 1926, 14 : 202-218.
277. Sarkar, S. K. Male sterility in palms. *Separata Da Agronomia Lusitana*, 1956, 28 : 257-271.
278. Sato, D. Karyotype alteration and phylogeny. VI. Karyotype analysis in Palmae. *Cytologia*, 1946, 14 : 174-186.
279. Schoute. Über das dichenwachistum der Palmen. *Ann. Jard. bot. Buitenz.*, 1913, 11 : 1-209.
280. Shama Bhat, K. Studies on certain aspects of floral biology and development of fruits in arecanut. M. Sc., Thesis, Madras Univ., 1961.
281. Shama Bhat, K. Additions to the list of abnormalities on arecanut. *Arecanut J.*, 1962, 13 (4) : 134-136
282. Shama Bhat, K. Increase fruit-set on arecanut by spray method of pollination. *Arecanut J.*, 1963, 14 (3) : 109-110.
283. Shama Bhat, K. Artificial pollination in arecanut palm (*Areca catechu* Linn.). *S. Indian Hort.*, 1965, 13 : 20-25.
284. Shama Bhat, K., Krishnamurthy, S. and Madhava Rao, V. N. Overlapping male and female phases in *Areca catechu* Linn. and the role of thrips as pollinating agents. *Madras agric. J.*, 1961, 48 : 145-147.
285. Shama Bhat, K., Krishnamurthy, S. and Madava Rao, V. N. Studies on the development of fruits in arecanut. *S. Indian Hort.*, 1962, 10 : 1-17.

286. Shama Bhat, K., Krishnamurthy, S. and Madava Rao, V. N.
On certain aspects of floral biology in arecanut.
S. Indian Hort., 1962, 10 : 22-34.
287. Shama Bhat, K., Krishnamurthy, S. and Madhava Rao, V. N.
On the specific name of arecanut. *Sci. & Cult.*, 1963, 29 (2) : 103.
288. Sharma, A. K. and Sarkar, S. K. Cytology of different species
of palms and its bearing on the solution of the
problems of phylogeny and speciation. *Genetica*, 1956,
28 : 361-488,
289. Sinclair, W. F. A branching arecanut palm. *J. Bombay nat.
Hist. Soc.*, 1889, 4 : 317.
290. Solereder, H. and Mayer, F. J. *Systematische Anatomie Der
Monokoty-ledonen Heft 3. Palmae*. Berlin, 1928, 3-85.
291. Swamy, B. G. L. Embryological studies in Palmae—A pre-
liminary note on megasporogenesis in *Areca catechu*
Linn. *Curr. Sci.*, 1942, 11 : 109.
292. Thanikamoni, G. Contribution A L'ETUDE Palynologique Des
Palmiers. *Travaux de la Section Scientifique et Technique,
Pondicherry*, 1966, 5 (2) : 3-87.
293. Thomas, C. A. Areca palm with thirteen crowns. *Arecanut
J.*, 1964, 15 (1) : 24.
294. Tomlinson, P. B. *Anatomy of Monocotyledons-Palmae*. Oxford
1961, 49, 62, 84, 370.
295. Trimen, H. and Hooker, J. D. *A Hand Book of Flora of
Ceylon*, 4. London, 1898, 321-322.
296. VanRhede, H. *Horti Malabarici*. Amsterdam, 1686.
297. Venkatasubban, A. R. Cytological studies in Palmae,
Part I — Chromosome numbers in a few species of
palms in British India and Ceylon. *Proc. Indian Acad.
Sci. (B.)*, 1945, 22 : 193-207.
298. Venkat Rao, C. Embryo development in arecanut. *Nature*,
1955, 175 ; 432-433. *Arecanut Bull.* 1955, 6 (3) : 39.
299. Voigt, A. Untersuchungen über Bau und Entwicklung von

Samen mit ruminertum Endosperm aus den Familien der Palmen, Myristicaceen und Annonaceen. *Ann. Jard. bot. Buitenz.*, 1888, 7 : 150-190.

300. Watt, J. *Dictionary of Economic Products of India* 1. 1889 Waterloo, 291-309.
301. Willis, J. C. A. *Dictionary of Flowering Plants and Ferns*. Cambridge, 1960, 52.
302. Yamamoto, Y. Materials, for a flora of South Eastern Asia including Formosa and Ryu-Kyu South China. *J. Soc. Trop. Agric. (Taiwan)*, 1939, 11 : 275—281.

E. CHEMISTRY

303. Anon. Investigations of the tannins of arecanut for Ink making. *Arecanut Bull.*, 1954, 5 : 90.
304. Baens, L. Tannins from kernels of green betelnuts. *Philipp. J. Sci.*, 1941, 75 (4) : 366.
305. Banerjee, S., Rajadurai, S. and Nayudamma, Y. Occurrence of D-catechin and a flavau 3:4 diol in arecanut. *Bull. Central Leather Research Inst.*, 1961, 8 : 174-175.
306. Banerjee, S., Rajadurai, S., Sastry, K. N. S. and Nayudamma Y. Studies on chemistry of arecanut tannins. *Leather Sci.*, 1963, 10 : 6-13.
307. Baruah, H. K., Raghavan, V. and Murthy, K. N. Investigations on the utilisation of by-products of Arecanut (*Areca catechu* Linn.) Part I—Biochemistry of the husk. *J. Sci. industr. Res. (C)*, 1957, 16 (4) : 89—95.
308. Batesmith, E. C. Detection and identification of anthocyanidins formed from leucoanthocyanins in plant tissues. *Biochem. J.*, 1954, 58 : 22-125.
309. Chemnitius, F. Zur herstellung des arecolins. *J. Pr. Chem.*, 1927, 117 : 147-150.
310. Chowdry, J. K., Chakravarthy, K. M. and Bhattacharya, A. K.

- Preparation of activated carbon from rice and betelnut husks. I—activated with Zinc chloride. *J. Indian Chem. Soc.*, 1941, 24 : 72-76.
311. Chowdry, J. K., Chakravarthy, K. M. and Bhattacharya, A. K. Preparation of activated carbon from betelnut husks. II—activated with steam and carbon dioxide. *J. Indian Chem. Soc.*, 1941, 24 : 77-82.
312. Das, N. K. and Baruah, H. K. Investigations on the effect of pretreatment of arecanuts with specific enzymes and chemicals on germination and nursery practices. *Arecanut J.*, 1965, 16 (2) : 5-18.
313. Dutta, S. N. and Dutta, A. B. Some important characteristics of genuine betelnut. *Curr. Sci.*, 1959, 29 : 198-199.
314. Erfan Ali and Khundkar, M. H. Studies on rice husk, betelnut husk and bamboo lignins, I—Isolation by different methods. *J. Indian Chem. Soc.*, 1953, 30, 551-555.
315. Erfan Ali and Khundkar, M. H. Studies on rice husk, betelnut husk and bamboo lignins, II—Nitrolignins. *J. Indian. Chem. Soc.*, 1954, 31 : 471-474.
316. Erfan Ali and Khundkar, M. H. Studies on rice husk, betelnut husk and bamboo lignins, III—Oxalic acid from lignins. *J. Indian Chem. Soc.*, 1954, 31 : 474-479.
317. Govindarajan, V. S. and Mathew, A. G. Polyphenolic substances of arecanut, I—Chromatographic analysis of fresh mature nut. *Phytochemistry*, 1963, 2 : 321-326.
318. Henry, T. H. *The Plant Alkaloides*. London, 1949.
319. Ishikawa, I. Materials containing tannin used in Japan. *Chem. News*, 1880, 42 : 274-277.
320. Kartha, A. R. S., Sethi, A. S. and Narayana, R. Biogenesis of oil in ripening coconut and arecanut. *J. Sci. industr. Res. (C.)*, 1959, 18 : 172-175.
321. Khadilkar, V. B. A comparative Physicochemical study of the coastal and hilly soils under areca palm in Bombay Konkan. M. Sc., Thesis, Poona Univ., 1961.

322. Khadilkar, V. B., Badhe, N. N. and Pandya, H. G. Physico chemical studies in the coastal and hilly soils under arecanut palm of the Deccan. *Arecanut J.* 1964, **15** (1) : 7-16.
323. Kukla, A. S., Nagarajan, G. R. and Seshadri, T. R. The polyphenols of arecanut and their possible utilisation. *Arecanut J.*, 1965, **16** (2) : 19-23.
324. Kumari, H. L. and Sirsi, M. Amino acids in *Areca catechu* Linn. (N. O. Palmae). *Curr. Sci.*, 1963, **32** (5) : 48-49.
325. Marnon, J. Nutritive value of Phillipine food plants (calcium, phosphorous and iron contents). *Philip. J. Sci.*, 1935, **58** : 317-358.
326. Market, R. E. Wagner, R. B., Ulshafer, P. R., Wittbecker, E. L., Goldsmith, D. P. J. and Rouf, C. H. New sources of sapogenins *J. Amer. Chem. Soc.*, 1947, **69** : 2242.
327. Mathew, A. G. Venkatramu, S. D. and Govindarajan, V. S. Studies on arecanut, I—Changes in chemical composition and physical characteristics of nuts with maturity. *Indian J. Technol.*, 1964, **2** : 90-96.
328. Mathew, A. G. and Govindarajan, V. S. Polyphenolic substances of arecanut, II—Changes during maturity and ripening. *Phytochemistry*, 1964., **3** . 657-665,
329. Narayananamurthy, D. and Harcharan Singh. Acid hydrolysis of coconut shell and arecanut husk for furfural and derived plastics. *Comp. Wood.*, 1955, **2** : 88-105.
330. Narayananamurthy, D. and Guptha, R. S. Note on the tannin formaldehyde adhesives based on *chogaru*. *Arecanut J.*, 1963, **14** (1) : 6-9,
331. Nagarajan, G. R. and Seshadri, T. R. Leucocyanidins of arecanut and toon (*Cedrala toona* Roxb.) Wood. *J. Sci. industr. Res (B.)*, 1961, **20** . 615-616.
332. Parukkutty Baruah. *On Certain Biochemical Aspects of Browning in Areca-nuts*, I. Calicut, 1962.
333. Pathak, S. P. and Mathur, S. S. The component acids and glycerides of arecanut (*Areca catechu*) fat. *J. Sci.*

Fd. Agric., 1954, 10 : 461-465.

334. Patwardhan, V. N. and Ranganathan, S. N. The nutritive value of Indian food and the planning of satisfactory diets. *Health Bull.*, 1951, 23 : 55-56.
335. Raghavan, V. and Baruah, H. K. Studies on the tannins of arecanut (*Areca catechu* Linn.), I—Development of the tannin cells. *Arecanut J.*, 1958, 10 : 35-42.
336. Raghavan, V. and Baruah, H. K. Studies on fats of arecanut (*Areca catechu* Linn.). *Sci. & Cult.*
337. Rajagopal, N. S. and Acharya, K. T. A note on three palm kernel fats—*Corypha umbraculifera* L., *Hyphaene thebasica* and *Areca catechu* L. *Indian Oilseeds J.*, 1961, 5 : 139.
338. Sastry, L. V. L., Sathyanarayana, S., Sreenivasan, M., Subramanian, N., and Subramanian, M., Polyphenols in edible materials. *J. Sci. industr. Res. (C.)*, 1956, 15 : 78-80.
339. Yamamoto, R. and Muraoka, T. The catechol in the fruit of *Areca catechu* L. *Sci. Paper Inst. Phys. Chem. Res.* Tokyo, 1932, 19 : 142-143.

F. TECHNOLOGY.

340. Abdul Latif. and Khundkar, M. A. Active Carbon from jute stalk and betelnut husk. *Pakistan J. Sci.*, 1952, 5 : 37-44.
341. Alexander Joshua. Kalipak manufacture—a study. *I. C. A. C. mont. Bull.*, 1951, 2 (6) : 64-66.
342. Anon. Report of the Recent Investigations at the Imperial Institute - *Paper Making Materials from India*. London, 1922.
343. Anon. Valuable materials from arecanut husk. *I. C. A. C. mont. Bull.*, 1952, 3 (2) : 21-22.

344. Anon. Investigations of the tannins of arecanut for ink making. *Arecanut Bull.*, 1955, 5 (6) : 90.
345. Anon. *Processing of Arecanut*. I. C. A. C. Leaflet, Calicut.
346. Anon. *Storage of Ripe Areca Fruits*. I. C. A. C. Leaflet, Calicut.
347. Anon. *Annual Reports of Arecanut Technological Laboratory*, Mysore. Calicut, 1959-60 to 1962-63.
348. Badhwar, Q. L., Dey, A. C. and Edwards, M. A. *The Vegetable Tanning Materials of India*. Indian Forest Leaflet 72, 1944, Dehradun : 1-43.
349. Baens, L. Possible utilisation of tannins from the kernels of green betelnuts. *Rev. Filpinia Med. Farm.* 1941, 32 : 143-145.
350. Banerjee, S., Ghani, M. A. and Nayudamma, Y. Arecanut tannins. *Arecanut J.*, 1959, 10 (1) : 5-6.
351. Banerjee, S., Ghani, M. A. and Nayudamma, Y. *Arecanut Tannins for Leather Industry*. Calicut, 1963.
352. Biddappa, K. G. Utilisation of arecanut waste. *Arecannt J.*, 1960, 11 (3) : 106-108.
353. Edwards, M. A., Badhwar, Q. L. and Dey, A. C. *The Vegetable Tanning Materials of India and Burma*, 1 (2), Dehradun, 1952.
354. Govindarajan, V. S. Arecanut and its by-products-Utilisation and technological research. *Planting and Commerce*, 1961, annual number.
355. Grasser, G. A propos de quelques tannins de Japan maridional. *Cuir. Tech.* 1929, 18 : 225-230.
356. Harcharansingh. Production of furfural from coconut shells and arecanut husk. *Comp. Wood*, 1956, 3 : 47-50.
357. Hooper, D. Indian tanning materials. *Agric. Ledger*, 1902, 1 : 1-56.
358. Howes, F. N. *Vegetable Tanning Materials*. London, 1953.
359. Jagaraj singh. and Guha, S. R. Brown wrapping paper from arecanut husk. *Research & Industry*, 1960, 5 (6) : 169-170.

360. Lewis, F. *The Vegetable Products of Ceylon*. Colombo, 1934.
361. Mathew, A. G., Venkatramu, S. D., Jaleel, S. A., Govindarajan, V. S. and Subramanyam, V. Storage of areca fruit—preservative steeping storage. *Arecanut J.*, 1963, 14 (3) : 51-61.
362. Namboodiri, E. S., Govindarajan, V. S. and Subramanyam, V. Mechanical drying of arecanut, I—making of ripe dry arecanut. *Arecanut J.*, 1963, 14 (3) : 95-100.
363. Narayananamurthy, D. *Utilisation of Some Agricultural Wastes*. I. C. A. R. Research series, 10, New Delhi, 1957.
364. Narayananamurthy, D. and Jagaraj Singh. Plastic materials from lignocellulosic wastes, II—The thermodynamic process. *Research & Industry*, 1961, 6 (9) : 314-316.
365. Narayananamurthy, D. and Jagaraj Singh. *Final Report of Utilisation of Arecanut Husk*. Calicut, 1964.
366. Narayananamurthy, D., Ranganathan, V. and George, J. *Building Boards, I—Utilisation of Arecanut Husk*. Indian Forest leaflet, 112, Dehradun, 1947, 1-9.
367. Nayudamma, Y. and Banerjee, S. *Final Report of the Researches on By-products of Arecanut*. Calicut.
368. Pillai, P. P. and Gopalakrishnan, V. T. Preservation of fresh arecanut. *Arecanut J.*, 1959, 9 (4) : 126-127.
369. Selvarangan, R. Areacnut as a tanning material. *Bull. Central Leather Research Institute*, 1955, 1 (10) : 4-7.
370. Shivasankar, S. and Govindarajan, V. S. Equilibrium relative humidity (ERH) relationships of processed arecanut and whole dried ripe nuts. *Food Science*, 1963, 12 (11) : 317-321.
371. Subramanyam, V. and Govindarajan, V. S. Technological research on arecanut. *Arecanut J.*, 1962, 13 (4) : 125-128.
372. Subramanyam, V., Siddappa, G. S., Govindarajan, V. S. and Iyengar, N. V. R. Utilisation of cellulosic agricultural wastes—pulp from banana pseudostem and arecanut husk. *Indian pulp and paper*, 1963, 17 (9) : 1-4.

373. Virakantamath, C. S. Packaging and storage studies of scented supari. *Food Science*, 1963, 12 (11) : 322-325.
-

G. PHARMACOLOGY.

374. Alport, N. L. *The Chemistry and Pharmacy of Vegetable Drugs*. London, 1943.
375. Badhwar, R. L. and Chopra, C. I. Reputed abortifacient plant of India. *Indian J. agric. Sci.*, 1946, 16 : 342-355.
376. Balend्रा, W. Effects of betel chewing on the dental and oral tissues and its possible relation to buccal carcinoma. *Brit. Dental J.*, 1949, 87 : 83-87.
377. Basu, K. P. *Studies in Protein, Fat and Mineral Metabolism in Indians*. Dacca, 1946.
378. Broker, R. and Bhatt, J. V. Phagocytic coefficients of certain indigenous medicinal plant extracts. *Curr. Sci.*, 1952, 21 (2) : 46-47.
379. Broker, R. and Bhatt, J. V. Phagocytic coefficient as a measure for evaluating plant antibiotics. *Indian J. Pharm.*, 1953, 15 : 309-310.
380. Broker, R., Gajjar, K. T. and Bhatt, J. V. Phagocytic response in guinea pigs to certain indigenous medicinal plant extracts. *Curr. Sci.*, 1953, 22 : 44-45.
381. Caius, J. F. The medicinal and poisonous palms of India. *J. Bombay nat. hist. Soc.*, 1934, 37 : 917-941.
382. Caius, J. F. and Mhaskar, M. H. The correlation between the chemical composition of anthelmintics and their therapeutic values in connection with the hook worm inquiry in the Madras Presidency. *Indian J. Med. Res.*, 1921, 9 : 106-109.
383. Chopra, R. N. *Indigenous Drugs of India*. Calcutta, 1953.
384. Chopra, R. N., Nayar, S. L. and Chopra, C. I. *Glossary of Indian Medicinal Plants*. New Delhi, 1956.

385. Chopra, R. N., Chopra, C. I., Handa, K. L. and Kapur, L. D. *Indigenous Drugs of India.* Calcutta, 1958.
386. Claus, E. P. *Pharmacognosy.* London, 1956.
387. Dastur, J. F. *Medicinal Plants of India and Pakistan.* Bombay, 1951.
388. Dutt, N. B. *Commercial Drugs of India.* Calcutta, 1928.
389. Feng, L. C. Arecanut and its extracts in the treatment of human tapeworms. *Peking nat. Hist. Bull.*, 1949, 18 : 63-72.
390. Feng, L. C., Ting, H. C. and Hwang, J. C. The action of arecanut (*Areca catechu* L.) and its extracts on tape-worms. *Peking nat. Hist. Bull.*, 1940, 17 : 233-240.
391. Ferguson, N. M. *A Text Book of Pharmacognosy.* New York, 1956.
392. Gilford. *Tumours and Cancer.* Colombo, 1908.
393. Githens, T. S. *Drug Plants of Africa.* Philadelphia, 1948.
394. Guerraro, L. M. Medicinal Uses of the Philippine plants. *Bureau of Forestry Bulletin*, 1921, 22 (3) : 172.
395. Hsiao-Liang, L. Betelnut as a useful teniafuge. *Chinese Med. J.*, 1936, 50 : 1273-1278.
396. Jahns, E. Ueber die alkaloide der arecanuss. *Ber.*, 1888, 21 : 3404-3409.
397. Jahns, E. Ueber die alkaolide der arecanuss. *Ber.*, 1890, 23 : 2972-2978.
398. Jahns, E. Ueber die alkaloide der arecanuss. *Ber.*, 1891, 24 : 2615-2617.
399. Jahns, E. Ueber die alkaloide der arcanuss. *Arch. Pharm.* 1891, 29 : 669-707.
400. Jayaweera, D. M. A. Drug plants (Indigenous and exotics) that can be grown in Ceylon. *Trop. Agric., Trin.*, 1945, 3 : 101-135.
401. Kariyone, T. and Tung, L. F. Crude drugs of Southern Asia. The use of areca alkaloides. *J. Pharm. Soc., Japan.*, 1944, 64 : 67.

402. Khanolkar, V. R. Oral cancer in India. *EXTRAIT De Acta Union Internationale Center Le Cancer*, 1959, 15 (1) : 67-77.
403. Kirtikar, K. R. and Basu, B. D. *Indian Medicinal Plants*, 4, Allahabad, 1933.
404. Kumari, H. L., Dorle, A. K., Sirsi, M. and Govindarajan, V. S. Observations on the effect of areca tannins on rat uterus. *Indian J. Pharm.*, 1964, 26 (10) : 268-269.
405. Kwasnuwski, V. Indifferent drugs of great toxicity. *Pharm. Zentralb.*, 1950, 89 : 379-382.
406. Martindale. *The Extra Pharmacopocia*. London, 1952.
407. Mhaskar, M. H. and Causis, J. F. Indian plant remedies used in snake bite. *Indian Med. Res. Mem.*, 1931, 19 : 18.
408. Modi, J. P. *A Text Book of Medical Jurisprudence and Toxicology*. Bombay, 1945.
409. Mukerjee, B. *Indian Pharmaceutical Codex*, 1. New Delhi, 1953, 19:21.
410. Nadkarni, A. K. *Indian Materia Medica*, 1. Bombay, 1954.
411. Sarma, S. N, *Enquiry into Etiology of Cancer of the Larynx in Assam with Special Reference to the Assamese Betelnut Chewing Habit*. Report of I. C. M. R., New Delhi, 1954.
412. Sirsi, M., Dorle, A. K. and Govindarajan, V. S. Influence of arecanut extracts on capillary circulation, I-Pharmacology of A., Catechu Linn. *The Licentiate*, 1963, 13 (1) : 22-26.
413. Sirsi, M., Dorle, A. K. and Govindarajan, V. S. On the Pharmacology of *Areca catechu* Linn. The influence of *Areca catechu* extract on the vasco constrictor action of adrenalin. *Curr. Sci.*, 1963, 32 : 455-456.
414. Steinmetz. *Materia Medica Vegetabilis*, 1. Amsterdam, 1954.
415. Trease, G. E. *A Text Book of Pharmacognosy*. London, 1952.
416. Waheed Khan, A. and Ghugtai, P. D. Nutritive value of food stuffs. *Pakistan J. Sci. Res.*, 1956, 8 : 155-165.

417. White, P. *Pathology of Growth (Tumours)*. London, 1913.
418. Wu, P. N. and Chen, H. H. The treatment of human Facio-lopsiasis buski with betelnut. *Peking nat. Hist. Bull.*, 1950, 18 : 151-154.
-

H. PESTS.

419. Anon. Annual report of the Division of Entomology, *Malay. Agric. J.*, 1929, 17 : 26.
420. Anon. Field rat control at the Regional Arecanut Research Station, Kyatasandra, Mysore State. *Arecanut J.*, 1960, 11 : 26.
421. Anon. Zinc Phosphide for the control of squirrels. *Arecanut J.*, 1960, 11 : 26-27.
422. Anon. A note on the new pest of arecanut. *Arecanut J.*, 1962, 13 (1) : 241-243.
423. Anon. A new borer pest on arecanut. *Indian Fmg.*, 1963, 13 (7) : 25.
424. Anon. Nematodes on arecanut soils. *Arecanut J.*, 1964, 15 (2) : 87-88.
425. Anon. Measures of prevention and control against some important pests and plant diseases of crops. *Bull. Dept. Agric., Mysore*, 1949.
426. Anon. *Mites on Arecanut and Their Control*. I. C. A. C. Leaflet, Calicut.
427. Anon. *White Grub Pest of Arecanut*. I. C. A. C. Leaflet, Calicut.
428. Anon. *Spindle Bug of Arecanut*. I. C. A. C. Leaflet, Calicut.
429. Appanna, M. Some new insects and mites on areca palm in Mysore State—IV. *Arecanut J.*, 1959, 10 (3) : 93-96.
430. Corbett, G. H. Annual report of the Division of Entomology. *Malaya agric. J.*, 1921 16 (4) : 136-140,

431. Corbett, G. H. *Insect pests of Coconuts in Malaya.* Kulalampur, 1932.
432. Fletcher, T. B. *Some South Indian Insects.* Madras, 1914.
433. Gokhale, G. P., Rege, N. D., Narayana, N. and Kibe, N. M. Some pests and diseases affecting arecanut in Bombay State. *The Farmer*, 1955, 6 (1) : 79-82, 84, 86.
434. Kantha, S., Rai, B. K. and Lal, R. Laboratory evaluation of pesticides to palm mite *Raoiella indica* Hirst. *Indian Coconut J.*, 1963, 14 (2) : 63-66.
435. Kapur, A. P., New species of Stetherus Weise (Coleoptera, Coccinellidae) feeding on arecanut palm mites in Kerala, Southern India. *Entomophaga*, 1961, 6 (1) : 35-38.
436. Khandige, S. B. A capsid bug on areca. *Arecanut Bull.*, 1955, 6 (7) : 120-121.
437. Kumar, S. N. S. and Naidu, G. V. B. *Morismus carinatus* Walk. as a new pest of arecanut. *Arecanut J.*, 1966, 16 (4) : 9-11.
438. Lever, R. J. A. W. Some insect pests of local economic plants. *British Solomon Islands Agricultural Gazette*, 1936, 3 (4) : 3-5,
439. Lever, R. J. A. W. Economic insects and biological control in British Solomon Islands. *Bull. ent. Res.*, 1937, 28 (2) : 325-331.
440. Miller, N. C. E. and China, W. E. A genus and species of Miridae from *Areca catechu* in South India (Hemiptera Heteroptera). *Bull. ent. Res.*, 1957, 47 : 429-431.
441. Murthy, K. N. and Hanumanthappa, S. *Diocalandra stigmaticollis* Gyll. as a major pest on arecaut. *Sci. & Cult.*, 1965, 31 : 645-646.
442. Murthy, K. N., Krishnappa, K. T., Hanumanthappa, S., Channamallappa, M. and Nagarajan, B. Some insects and mites of areca palm in Mysore - V. *Arecanut J.*, 1965, 16 (3) : 9-11.
443. Naidu, G. V. B. Squirrel damage to the arecanut crop and its control. *Arecanut J.*, 1962, 13 (3) : 91-93.

444. Naidu, G. V. B. A note on the grub of Rhinoceros Beetle (*Oryctes rhinoceros*) as a pest of arecanut crop. *Arecanut J.*, 1963, 14 (1) : 13-14.
445. Naidu, G. V. B. and Kumar, S. N. S. *Diocalandra stigmatocollis* Gyll. as a new borer pest on arecanut crop. *Curr. Sci.*, 1963, 32 : 425-426.
446. Nair, R. B. *Carvalhoia areca* Miller and China—A major pest of *Areca catechu* L. *Arecanut J.*, 1964, 15 (2) : 57-61.
447. Nair, R. B. The Butterfly pest of arecanut crop. *Arecanut J.*, 1964, 15 (4) : 179-181.
448. Nair, R. B. and Radha Menon. Major and minor pests of arecanut crop. *Arecanut J.*, 1963, 14 (4) : 139-147.
449. Nair, R. B. and Rao, K. S. N. Occurrence of new genera of mite on arecanut. *Arecanut J.*, 1964, 15 (4) : 182.
450. Nair, M. R. G. K. and Das, N. M. On the biology and Control of *Carvalhoia arecae* Miller and China, as a pest of arecanut palm in Kerala State. *Indian J. Ent.*, 1962, 24 : 86-93.
451. Nair, M. R. G. K. and Das, N. M. A new insect pillager of areca crop. *Indian Fmg.*, 1964, 13 (10) : 10.
452. Neves, C. M. B. and Moreira, M. J. S. The use of X-rays in evaluating the quality, freedom from pest attack and efficacy of treatment from some agricultural and forest products. *Agricultura Lisboa*, 1960, 8 : 12-17.
453. Patel, G. I. and Rao, K. S. N. Important diseases and pests of arecanut and their control. *Arecanut J.*, 1958, 9 (3) : 89-96.
454. Pillai, G. B. and Kurian, C. Some observation on areca thrips—*Rhipiphorothrips cruentatus* Hood. *Arecanut J.*, 1959, 9 (4) : 123-125.
455. Pillai, G. B. and Kurian, C. New light on areca's pest enemies. *Indian Fmg.*, 1959, 9 (8) : 5-7.
456. Puttarudriah, M. and Channa Basavanna, G. P. Some new insect and mite pests of areca palm in Mysore—I. I.C.A.C. mont. *Bull.*, 1953, 4 (5) : 71-74.

457. Puttarudriah, M. and Channa Basavanna, G. P. Some new insect and mite pests of areca palm in Mysore—II. *Arecanut Bull.*, 1956, 7 (1) : 9-10.
458. Puttarudriah, M. and Channa Basavanna, G. P. Some new insect and mites on areca palms in Mysore—III. *Arecanut J.*, 1957, 8 (1) : 10-11.
459. Puttarudriah, M. and Channa Basavanna, G. P. Preliminary acaricidal trial against areca mite *Raoiella indica* Hirst *Arecanut J.*, 1957, 8 (4) : 87-88.
460. Radha Menon, Nair, R. B. and Abraham, K. J. A note on pests and diseases of areca seedlings. *Arecanut J.*, 1962, 13 (2) : 26-29.
461. Ramachandran, S. Insect pests of areca palm. *I.C.A.C. mont. Bull.*, 1951, 1 (9) : 7-8.
462. Ramakrishna Ayyar, *Hand Book of Economic Entomology of South India*. Madras, 1940.
463. Rao, K. S. N. Plant protection practices in Areca-nut. *Arecanut J.*, 1960, 11 (1) : 14-16.
464. Rao, K. S. N. and Bavappa, K. V. A. Nursery diseases and pests of arecanut and their control. *Arecanut J.*, 1961, 12 : 130-139.
465. Rao, K. S. N., Naidu, G. V. B. and Bavappa, K. V. A. The white grub pest of arecanut. *Arecanut J.*, 1961, 12 (1) : 22-25.
466. Usman, S. and Puttarudriah, M. *A list of Insects of Mysore Including Mites*. Mysore Agricultural Department Bull., 16, Mysore, 1955.
467. Valsala, P. G. Pests of arecanut and their control. *Cocon. Bull.*, 1958, 12 : 13-16.
468. Venugopal, S. V. and Venugopal, V. A new occurrence of caseworm on arecanut in Coimbatore District. *Madras agric. J.*, 1961, 48 : 309-310.

I. DISEASES.

469. Agnihotri, V. P. Some Pathological studies of *Alternaria tenuis* causing leaf spot disease of *Areca catechu*. *Mycopath. Mycl. Appl.*, 1963, 21 (1) : 64-73.
470. Anon. Remedies for Koleroga Disease of Betelnuts. Leaflet, Department of Agriculture, Bombay, 1926.
471. Anon. Measures of prevention and control against some important pests and plant diseases of crops. *Bull. Dept. Agric., Mysore*, 1949.
472. Anon. How to Control Fruit-rot and Foot-rot of Areca-nut. I. C. A. R. Leaflet, New Delhi, 1953.
473. Anon. Some diseases of arecanut seedling and their control. *I. C. A. C. mont. Bull.*, 1953, 4 (6) : 83-86.
474. Anon. Stem bleeding disease of areca palm. *I. C. A. C. mont. Bull.* 1953, 3 (9) : 130.
475. Anon. Koleroga, Mahali or fruit rot of arecanut. *I. C. A. C. mont. Bull.*, 1954, 5 (2) : 19-20.
476. Anon. Consolidated report of stem breaking disease. *Areca-nut J.*, 1956, 7 (1) : 3-11.
477. Anon. Anabe Roga. *Extension*, 1961, 1 : 13.
478. Anon. Band Disease of Areca Palm. I. C. A. C. Leaflet Calicut.
479. Anon. Anabe Roga of Areca-nut. I. C. A. C. Leaflet, Calicut
480. Anon. Yellow Leaf Disease of Areca Palm in Kerala State. I. C. A. C. Leaflet, Calicut.
481. Anon. Bud Rot of Areca-nut. I. C. A. C. Leaflet, Calicut.
482. Anon. Koleroga, Mahali or Fruit Rot of Areca-nut. I. C. A. C. Leaflet, Calicut.
483. Anon. Stem Breaking of Areca Palms. I. C. A. C. Leaflet, Calicut.
484. Bavappa, K. V. A. and Sahadevan, P. C. A note on fruit cracking in arecanut. *Madras Agric. J.*, 1952 : 39 (6).

- 386-387. *I. C. A. C. mont. Bull.*, 1952, 3 (2) : 20-21.
485. Bose, S. R. Artificial Culture of *Ganoderma lucidum* (Leys.) Karst. from spore to spore. *Bot. Gaz.*, 1930, 87 : 665-667
486. Bunter, E. J. Some diseases of palms (Betelnut plague in Sylhet). *Agric. J., India*, 1908 : 302-304.
487. Coleman, L. C. *Anabe Roga of Supari*. Annual report of Agricultural Chemist, Mysore, 1909.
488. Coleman, L. C. *Diseases of Areca Palm-I Koleroga*. Bangalore, 1910, 1-84.
489. Daji, J. A. Manganese toxicity as a probable cause for Band disease of areca palm. *Curr. Sci.*, 1948, 4 : 77-82.
490. Dastagir, A. A. A note on the preliminary investigations of yellow leaf disease of areca palms in Mysore State. *Arecanut J.*, 1963, 14 (2) : 62-63.
491. Dastagir, A. A. The new yellow leaf disease of areca palm in Mysore State. *Lalbaugh, India* 1965, 10 (3) : 3-4.
492. Gokhale, G. P., Kasaragode, R. S. and Ajrekar, S. L. The Band disease of betelnut palm in Konkan. *Poona agric. College Magazine*. 1916, 8 : 49-53.
493. Gokhale, G. P. Rege, N. D., Narayana, N. and Kibe, N. M. Some pests and diseases affecting arecanut in Bombay State. *The Farmer*, 1955, 6 (1) : 79-82, 84, 86.
494. Govindakutty Kurup, P. Grow pepper and control stem splitting of arecanut trees. *Arecanut Bull.*, 1955, 6 (4) : 62-63.
495. Iswara Bhat, P. S. Splitting of arecanuts. *Indian Fmg.*, 1961, 10 (11) : 27.
496. Joshi, N. V. and Joshi, S. G. The Band disease of areca palm. *I. C. A. C. mont. Bull.*, 1952, 2 (8) : 91-96.
497. Joshi, N. V. and Joshi, S. G. Experiments on the control of Band disease of areca palms. *Sci. & Cult.*, 1954, 10 (8) : 387-391.
498. Joshi, N. V. and Joshi, S. G. Further experiments on the control of Band disease of areca palm. *Proc. India Sci. Congress*, 1954, 41 : 257.

499. Khandige, S. B., Patel, G. I. and Bavappa, K. V. A. Preliminary observations on yellow leaf disease of areca-palms. *Arecanut J.*, 1957, 8 (3) : 61-62.
500. Kibe, N. M., Gokhale, G. P. and Narayana, N. Band disease of areca palm. *Arecanut J.*, 1957, 7 (4) : 83-85.
501. Krishnamurthy, K. On Bordeaux mixture spraying. *Arecanut Bull.*, 1955, 6 (9) : 154-156.
502. Kumari, H. L., Sirsi, M. and Govindarajan, V. S. Antibacterial and antifungal activities of *Areca catechu* Linn. *Indian J. exp. Bot.*, 1965, 3 : 66-67.
503. Lal, A. and Chandra, R. Storage rot of betel nuts caused by *Aspergillus niger* arecae. *J. Sci. Res. Banares Hindu Univ.*, 1952-53, 3 : 119-129.
504. Lily, V. G., Nair, V. K. and Pandalai, K. M. On the need for Prophylactic spraying of palms for leaf attack in mixed gardens of coconut and arecanut palms. *Arecanut J.*, 1965, 16 (1) : 5-9.
505. Marudarajan, D. Fruit rot of Areca nut. *I.C.A.C. mont. Bull.*, 1950 1 (1-5) : 5-6.
506. Marudarajan, D. Fungicides and Weedicides. *I.C.A.C. mont. Bull.*, 1952, 2 : 74-80, 88-90.
507. Marudarajan, D. and Kalyanasubramanyam, S. The use of plain Bordeaux mixture for the successful control of fruit rot (Mahali) of areca caused by *Phytophthora arecae*. *Madras Agric. J.* 1948, 35 : 169-178. *I.C.A.C. mont. Bull.*, 1952, 2 : 125-129, 143-146.
508. McRae, W. New diseases during the year 1932 in India. *Int. Bull. Plant. Protec.*, 1933 : 1 : 79-80.
509. Mundkur, B. B. *Fungi and Plant Diseases*, London, 1949.
510. Nambiar, K. K. and Sreenivasan, P. A. The yellow leaf disease of areca palm in Travancore Cochin. *I.C.A.C. mont. Bull.*, 1951, 2 (5) : 51-55.
511. Naidu, G. V. B. A note on pseudo-budrot of arecanut. *Arecanut J.*, 1960, 10 (4) : 161-165.
512. Naidu, G. V. B. and Kumar, S. N. S. *Nigrospora sphaerica*

(Sacc) Mason. on arecanut. *Arecanut J.*, 1964, 15 (3): 126-129.

513. Naidu, G. V. B., Kumar S. N. S. and Sannamarappa, M. *Ganoderma lucidum* (Leys.). Karst.—A review and further observations. *Lalbaugh, India*, 1966.
514. Narasimhan, M. J. Studies in the genus *Phytophthora* in Mysore—Heterothallic strains of *Phytophthora-Phytopath.*, 1930, 20 : 210-214.
515. Narasimhan, M. J. Oil Bordeaux mixture against Koleroga of arecanut. *Mysore agricultural Calendar*, 1934: 21-25.
516. Nair, R. B. and Rao, K. S. N. A note on the efficacy of new fungicides on *Ganoderma lucidum*. *Arecanut J.*, 1965, 16 (4) : 6-9.
517. Pailey, P. V. and Radha Menon. An algal parasite (*Cephaleuros Kunze*) on arecanut palm. *Arecanut J.*, 1960, 11 (1) : 17-19.
518. Patel, G. I. and Rao, K. S. N. Important, diseases and pests of arecanut and their control. *Arecanut J.*, 1958, 9 (3) : 89-96.
519. Radha Menon. *Ceriospora arecae* Menon sp. novo. *Arecanut J.*, 1959, 10 (3) : 108-110.
520. Radha Menon. Seedling blight of arecanut nurseries. *Arecanut J.*, 1959, 10 (3): 110-111.
- 521 Radha Menon. Soft rot on arecanuts. *Arecanut J.*, 1959, 10 (3): 112-115.
522. Radha Menon. Serological tests on yellow leaf disease of arecanuts. *Arecanut J.*, 1960, 11 (1): 12-13.
523. Radha Menon. Yellow leaf disease and mites. *Arecanut J.*, 1960, 11 (2): 58-59.
524. Radha Menon. Biochemical studies on the yellow leaf disease of arecanut palms. *Arecanut J.*, 1961, 12 (1) : 16-21.
525. Radha Menon. Yellow leaf disease-a mystery killer of areca. *Indian Fmg.*, 1962, 12 (8) : 20-21.

526. Radha Menon. Some investigations on the control of yellow leaf spot in nurseries. *Arecanut J.*, 1962, 13 (1) : 231-235.
527. Radha Menon. Transmission of yellow leaf disease. *Phytopathologische Zeitschrift*, 1963, 48 (1) : 82-88.
528. Radha Menon. and Kalyanikutty, T. Preliminary studies of yellow leaf disease with trace elements and fertilisers. *Arecanut J.*, 1961, 12 (1) : 14-15.
529. Radha Menon., Nair, R. B. and Abraham, K. J. A note on pests and diseases of areca seedlings. *Arecanut J.*, 1962, 13 (2) : 26-29.
530. Ramakrishnan, T. S. Sunscorch in areca. *Proc. Indian Acad. Sci. (B.)*, 1956, 43 : 258-263.
531. Ramakrishnan, T. S. and Seethalakshmi, V. Studies on the genus *Phytophthora*. Homothallic strains of *Phytophthora* on *Areca catechu*. *Proc. India Acad. Sci. (B.)*, 1956, 43 : 308-313.
532. Rao, K. S. N. Plant protection in arecanut. *Arecanut J.*, 1960 11 (1) : 14-16.
533. Rao, K. S. N. Studies on the leaf blight of arecanut caused by *Curvularia*. sp *Arecanut J.*, 1962, 13 (2) : 22-25.
534. Rao, K. S. N. The occurrence of shoot rot in arecanut palm (*Areca catechu* Linn.). *Arecanut J.*, 1962, 13 (4) : 132-133.
535. Rao, K. S. N. Fungicidal spraying in arecanut during the dry weather period. *Arecanut J.*, 1965, 16 (1) : 10-11.
536. Rao, K. S. N. and Bavappa, K. V. A. Nursery diseases and pests of arecanuts and their control. *Arecanut J.*, 1961, 12 (3) : 136-139.
537. Rau, M. K. V. Anabe Roga. *Mysore Agricultural Calendar* 1917 : 27.
538. Rodrigues., Zakia Banu, Murthy, N.V.N. and Srivastava, H.S. Effect of 2, 3, 5, 6, tetrachloro nitro benzene on growth character of *Thielaviopsis paradoxa* and *Pencillium italicum*. *Food Science*, 1962, 11 (2) : 366-368.

539. Roy, A. K. Leaf blight of arecanut in Assam. *Arecanut J.*, 1965, 16 (4) : 14-16.
540. Samraj, J. and Pailey, P. V. Boron induced yellowing in areca palms. *Kerala Agric. Res. J.*, 1965, 3 (1) : 107.
541. Shanta, P. The experimental transmission of coconut wilt virus (C. W. V.) into *Arecanut catechu* Linn. *Indian coconut J.*, 1961, 14 : 85-86.
542. Sharples, A. Palm diseases of Malaya. *Malaya agric. J.*, 1928, 16 : 313-360.
543. Shaw, F. J. F. *The Mahali Disease of Arecanut*. Dept. of Agriculture, Madras Leaflet, Madras, 1913.
544. Sreenivasan, P. A. The vital role lime plays in the correct preparation of Bordeaux mixture. *I. C. A. C. mont. Bull.*, 1951, 2 (2) : 13-16.
545. Srivasthava, H. S., Zakia Banu. and Govindarajan, V. S. Fruit rot of arecanut caused by a new fungus. *Mycologia*, 1962, 54 (1) : 5-11.
546. Sundararaman, S., Krishnan Nair, and Ramakrishnan, T. S. The stem bleeding disease of arecanuts (*Areca catechu*) caused by fungus *Thielaviopsis paradoxa* Von Hon. *Bull. agric. Res. Instt., Pusa*, 1928, 169 : 1-12.
547. Thomas, K. M. and Marudarajan, D. Some aspects of Koleroga or Mahali of areca palm. *I. C. A. C. mont. Bull.*, 1952, 2 (10) : 113-117.
548. Thomas, K. M. and Ramakrishnan, T. S. Studies in the genus *Phytophthora*—II. *Proc. Indian Acad. Sci. (B.)*, 1948, 27 : 55-73.
549. Thomas, K. M., Sowmini, C. K. and Balakrishnan, M. S. Studies in the genus *Phytophthora*—I Oospore formation and taxonomy of *Phytophthora palmivora* Butler. *Proc. Indian Acad. Sci. (B.)* 1947, 26 : 147-163.
550. Thirumalachar, M. J. Budrot of areca palm in Mysore. *Nature*, 1946, 15 : 106-107.
551. Uppal, B. N. and Desai, K. Koleroga of arecanut. *Curr. Sci.*, 1939, 8 (3) : 122-124.

552. Vasudeva, R. S. *Common Names of Indian Plant Diseases.* New Delhi, 1960.
553. Venkatarayan, S. V. How to distinguish between stem bleeding disease and anabe roga of coconut. *Mysore agricultural calendar*, 1929 : 13-17.
554. Venkatarayan, S. V. The biology of *Ganoderma lucidum* on arecanut and coconut palms. *Phytopath.*, 1936, 26 : 153-175.
555. Venkatarayan, S. V. Budrot of areca palm and Hidimundige in Mysore. *Nature*, 1946, 15 (8) : 882.
556. Venkatarayan, S. V. Root disease or anabe roga of arecanut and coconut palms. *Mysore agricultural calendar*, 1949 : 25-27.
557. Venkatarayan, S. V. Root disease or anabe roga of areca palm. *I. C. A. C. mont. Bull.*, 1952, 3 (8) : 38-41.
558. Venkatarayan, S. V. The trunk splitting disease of areca palm. *Arecanut Bull.*, 1955, 5 (2) : 181-182.
559. Venkata Rao, M. K. The pest act against Koleroga and its application. *Mysore agricultural Calendar*, 1919.
560. Venkatakrishnan, N. S. Anabe roga of coconut and arecanut palms caused by *Ganoderma lucidum* and its eradication. *Mysore agric. J.*, 1956, 31 : 227-231.
561. Watt, G. A plague of betelnut palms and the destruction of the tissues by what appears to be a form of tylosis. *Agricultural Ledger*, 1909, 8 : 129-179.

J. MARKETING.

562. Anon. *Report of the Marketing of Arecanuts in India.* New Delhi, 1949.
563. Anon. Grading of arecanut. *I. C. A. C. mont. Bull.*, 1953, 3 (11) : 166-167.

564. Anon. Biligotu or chali supari of South Kanara. *Madras agric. J.*, 1955, 42. *Arecanut Bull.*, 1955, 6 (2) : 21-22.
565. Anon. Grading of sliced boiled arecanuts. *Arecanut Bull.*, 1955, 6 : 40-44, 63-67, 82-86, 101-105, 117-120, 134-137, 170-178.
566. Anon. Review of arecanut trade in South Kanara. *Arecanut J.*, 1958, 9 (1) : 14-16.
567. Anon. *Report of the Marketing of Arecanuts and Betelnuts in India*. Nagpur, 1962.
568. Anon. *Annual Reports of the Marketing Section of Indian Central Arecanut Committee*. Calicut, 1952-53 to 1964-65.
569. Anon. *Co-operative Marketing of Arecanut*. I. C. A. C. Leaflet, Calicut.
570. Anon. *Grade Your Arecanut*. I. C. A. C. Leaflet, Calicut.
571. Anon. *Market Intelligence of Arecanut*. I. C. A. C. Leaflet, Calicut.
572. Anon. *Regulated Market for Arecanut*. I. C. A. C. Leaflet, Calicut.
573. Govinda Bhat. *Betelnut Excise—A case for its Abolition*. Mangalore, 1946.
574. Kannamgara, A. W. The preparation of arecanut for the market in Mysore with brief notes on cultivation. *Trop. Agriculturist.*, 1941, 46 : 187-200.
575. Lakshmanachar, M. S. Recent trends in arecanut Imports. *Agric. Situat., India*, 1965, 19 (12) : 1093-1099.
576. Lakshmanachar, M. S. Present arecanut situation in India. *Planting and Commerce*, 1966, 13 (13-14) : 12-17.
577. Lakshmanachar, M. S. and Ravindran, T. C. Fluctuation of wholesale prices of Arecanuts in Mysore State during 1950-64. *Arecanut J.*, 1965, 16 (3) : 13-18.
578. Lakshmanachar, M. S. and Shamanna, K. Study of the fluctuation in the price of arecanuts in assembling

- markets of India—A preliminary approach. *Arecanut J.*, 1965, 16 (1) : 12-19.
579. Lakshmanachar, M. S. and Shenoy, J. R. Elasticity of demand of arecanut in India—A preliminary study. *Arecanut J.*, 1964, 15 (3) : 123-125.
580. Murthy, S. S. Imports of arecanut. *Arecanut J.*, 1960, 11 (2) : 62-64.
581. Nambiar, K. K. Adultration in arecanuts. *I. C. A. C. mont. Bull.*, 1951, 2 (1) : 1-3.
582. Nambiar, K. K. Protection of arecnut trade. *I.C.A.C. mont. Bull.*, 1951, 2 (4) : 38-42.
583. Nambiar, K. K. Processing of arecanuts. *Mysore agricultural Calendar*, 1954 : 102-103.
584. Puri, S. S. *Report of the Study Team on Co-operative Marketing of Specified Plantation Crops*. New Delhi, 1964.
585. Raman Moosad, C. A note on different models of price fixation in regulated and unregulated markets in Madras and other States. *Madras agric. J.*, 1954, 41. *Arecanut Bull.*, 1955, 5 (3) : 34-39.
586. Shamanna, K. Organisation of co-operative marketing of arecannt. *I. C. A. C. mont. Bull.*, 1950, 1 (1-5) : 9-13.
587. Shamanna, K. Areacnut marketing in Mangalore and setting up of grade standards. *I. C. A. C. mont. Bull.*, 1951, 1 (10) : 1-5.
588. Shamanna, K. Areacnut marketing in Mysore State. *I. C. A. C. mont. Bull.*, 1951, 1 (12) : 1-8.
598. Shamanna, K. Preparation of arecanut for markets in different centres of production in Indian Union and the trend of prices during 1951. *I. C. A. C. mont. Bull.*, 1951, 2 (3) : 24-30.
590. Shamanna, K, Improvement of marketing of arecanuts in India. *I. C. A. C. mont. Bull.*, 1952, 2 (11) : 130-134.
591. Shamanna, K. Market conditions and review of prices of arecanuts in different assembling markets during half

- year ending June, 1952. *I. C. A. C. mont Bull.*, 1952, 3 (2) : 14-19.
592. Shamanna, K. Market conditions and review of prices of arecanuts in different assembling markets during half year ending December, 1952. *I. C. A. C. mont. Bull.*, 1953, 3 (8) : 112-118.
593. Shamanna, K. Marketing of arecanuts in India. *I. C. A. C. mont. Bull.*, 1953, 3 (12) : 178-183.
594. Shamanna, K. Market conditions and review of prices of arecanuts in different assembling markets for half year ending June, 1953. *I. C. A. C. mont. Bull.*, 1953, 4 (3) : 31-37.
595. Shamanna, K. Market conditions and review of prices of arecanuts in different markets for the half year ending June, 1954. *Arecanut Bull.*, 1955, 5 (5) : 68-72.
596. Shamanna, K. Co-operative marketing of arecanuts. *Arecanut J.*, 1957, 8 (2) : 31-34.
597. Shamanna, K. Organisation of Co-operatives of arecanuts in Assam state. *Arecanut J.*, 1958, 9 (1) : 8-13.
598. Shamanna, K. Processing of arecanut in Co-operative lines. *Arecanut J.*, 1959, 10 (1) : 17-20.
599. Shamanna, K. Areacnut trade in India. *Arecanut J.*, 1959, 10 (1) : 20-21.
600. Shamanna, K. Beware of adulteration of arecanut. *Arecanut J.*, 1960, 11 (2) : 56-57.
601. Shamanna, K. Integration of credit with marketing with special reference to arecanut. *Arecanut J.*, 1960, 11 (3) : 103-105.
602. Shamanna, K. Warehousing Corporations and Co-operative credit and marketing societies. *Arecanut J.*, 1961, 12 (4) : 181-184.
603. Shamanna, K. *Report on the Production, Marketing and Utilisation of Sago Palm Nuts*. Calicut, 1961.
604. Shamanna, K. Co-operative marketing. *Arecanut J.*, 1963, 14 (3) : 102-107.

605. Sreenivasan, P. A. Curing of arecanuts during the monsoon months in Malabar. *I. C. A. C. mont. Bull.*, 1953, 4 (1) : 7-8.
606. Unnikrishna Menon, K. Marketing difficulties of Malabar arecanut growers and their solution. *I. C. A. C. mont. Bull.*, 1950, 1 (1-5) : 7-8.
607. Unnikrishna Menon, K. Difficulties in marketing of Malabar arecanuts. *I. C. A. C. mont. Bull.*, 1953, 4(4) : 49-54.
608. Varadarajan, B. S. Arecanut Research development and marketing in Kerala. *I. C. A. C. mont. Bull.*, 1953, 4 (4) : 49-54.

K. STATISTICS

609. Anon. A report on the scheme for collection of statistics of area and production of arecanut (Supari) in West Bengal. *Arecanut Bull.*, 1954, 5 (1) : 144-146.
610. Anon. Study of cost of cultivation of arecanut in Mysore State. *Statist. News Lett.*, 1962, 12 (2) : 14-19.
611. Anon. Experimentation on trees and other perennial crops. *Statist. News Lett.*, 1962, 11 (2) : 2-6.
612. Lakshmanachar, M. S. Acerage and production statistics of arecanuts in India I. *Arecanut J.*, 1964, 15 (1):17-21.
613. Lakshmanachar, M. S. The pilot scheme for the study of cost of cultivation of arecanut in Mysore State during 1959-60 and 1960-61. *Arecanut J.*, 1964, 15 (2):79-84.
614. Lakshmanachar, M. S. Acerage and production statistics of arecanut in India—II. *Arecanut J.*, 1965, 16 (2): 24-30.
615. Panse, V. G. Sample survey for estimation of yield of coconut and arecanut. *Arecanut J.*, 1964, 15 (4) : 161-172.

AUTHOR INDEX

(REFERENCE IS GIVEN TO THE SERIAL NUMBER OF THE ENTRY).

- Abdul Latif: 340
Abraham, A: 187
Abraham, K. J: 126, 127, 460,
 529
Abraham, P: 105
Acharya, K. T: 337
Adyanthaya, N. R: 141, 188
Agharker, S. P: 79
Agnihotri, V. P: 469
Ajrekar, S. L: 492
Alexander Joshua: 341
Alport, N. L: 374
Ambuja Pillai: 256
Andy, P. S: 189
Appanna, M: 429
Badhe, N. N: 322
Badami, V. K: 121
Badhwar, Q. L: 348, 353
Badhwar, R. L: 375
Baens, L: 304, 349
Bailey, E. Z: 195
Bailey, L. H: 22, 193-195
Balakrishnan, M. S: 549
Balakrishna, N: 141
Balendra, W: 376
Balfour, E: 23
Banerjee, S: 305, 350, 351, 367.
Baruah, H. K: 65, 66, 196, 197,
 261, 266, 307, 312, 336
Basu, B. D: 403
Basu, K. P: 377
Batesmith, E. C: 308
Bavappa, K. V. A: 24-26, 122-
 131, 149, 150, 198-205, 241-246
 464, 465, 484, 499, 536
Beccari, O: 206
Bentham, G: 207, 208
Bhargava, N. M: 27
Bhatkal, R: 132, 133
Bhatt, J. V: 378-380
Bhattacharya, A. K: 311
Biddappa, K. G: 147, 175, 352
Blatter, E: 28, 209
Bose, S. R: 485
Broker, R: 378-380
Brown, W. H: 210
Buchanan, F: 80
Bunia, S. N: 174
Burkhill: 29
Burnet: 30
Burns, W: 31
Butler, E. J: 486
Caius, J. F: 381, 382, 407
Carton, P: 63
Chakravarthy, J: 32
Chakravarthy, K. M: 310
Channabasayanna, G. P: 456-
 459
Channamallappa, H: 231, 442
Chandra, R: 503
Chemnitius, F: 309
Chen, H. H: 418
Cheeran, A: 211
Chidambaram Iyer, N: 81
China, W. E: 440
Chopra, C. I: 375, 384, 385
Chopra, R. N: 383-385
Chowdry, J. K: 310-311
Chowdry, S: 33
Claus, E. P: 386

- Coleman, L. C: 134, 487, 483
Cooke: 212
Corbett, G. H: 430, 431
Cormac: 213
Daji, J. A: 489
Darlington, C. D: 214-216
Das, N. K: 217, 312
Das, N. M: 450, 451
Dastagir, A. A: 490, 491
Dastur, J. F: 387
Davis, T. A: 219-221
Decandole, A: 222
Desai, K: 551
Dey, A. C: 348, 353
Dhar, M: 73
Dorasami, L. S: 34
Dorle, A. K: 404, 412, 413
Drabble: 223
Dutt, N. B: 388
Dutta, A. B: 313
Dutta, S. N: 313
Edwards, M. A: 348, 353
Erfan Ali: 314-316
Evans, F. B: 82
Feng, L. C: 389, 390
Ferguson, J: 35
Ferguson, N. M: 391
Fletcher, T. B: 432
Francis: 212
Frontou, L: 63
Gajjar, K. T: 380
Ghani, M. A: 350, 351
Ghouse Mohiyuddin: 129
Ghugtai, P. D: 416
Gilford: 392
Githens, T. S: 393
Gode, P. K: 83-90
Gokhale, G. P: 433, 492, 493, 500
Gopalakrishnan, V. T: 368
Govinda Bhat: 573
Govindakutty Kurup, P: 494
Govindarajan, V. S: 317, 327, 328, 354, 361, 362, 370-372, 404, 412, 413, 502, 545
Grasser, G: 355
Griffith, W: 91
Grist, D. H: 36, 224
Guerraro, L. M: 394
Guha, S. R: 358
Handa, K. L: 385
Hanumanthappa, S: 441, 442
Harcharan Singh: 329, 356
Henry, T. H: 318
Hooker, J. D: 207, 208, 226, 227, 295
Hooper, D: 357
Howes, F. N: 359
Hrishi: 92
Hrishikesan Nair, N: 37
Hsiao-Liang, L: 395
Hutchinson, J: 228
Hwang, J. C: 390
Ishikawa, I: 319
Iswara Bhat, P. S: 93, 135, 136, 495
Iyengar, N. V. R: 372
Iyer, A. K. Y: 38
Jackson, B: 227
Jacob, K. C: 229
Jahns, E: 396-399
Jagaraj Singh: 358, 364, 365
Jallel, S. A: 361
Janaki Ammal, E. K: 214, 215
Jayaweera, D. M. A: 400
John, T. J: 137
Joshi, N. V: 496-498

- Coleman, L. C: 134, 487, 488
Cooke: 212
Corbett, G. H: 430, 431
Cormac: 213
Daji, J. A: 489
Darlington, C. D: 214-216
Das, N. K: 217, 312
Das, N. M: 450, 451
Dastagir, A. A: 490, 491
Dastur, J. F: 387
Davis, T. A: 219-221
Decandole, A: 222
Desai, K: 551
Dey, A. C: 348, 353
Dhar, M: 73
Dorasami, L. S: 34
Dorle, A. K: 404, 412, 413
Drabble: 223
Dutt, N. B: 388
Dutta, A. B: 313
Dutta, S. N: 313
Edwards, M. A: 348, 353
Erfan Ali: 314-316
Evans, F. B: 82
Feng, L. C: 389, 390
Ferguson, J: 35
Ferguson, N. M: 391
Fletcher, T. B: 432
Francis: 212
Frontou, L: 63
Gajjar, K. T: 380
Ghani, M. A: 350, 351
Ghouse Mohiyuddin: 129
Ghugtai, P. D: 416
Gilford: 392
Githens, T. S: 393
Gode, P. K: 83-90
Gokhale, G. P: 433, 492, 493, 500
Gopalakrishnan, V. T: 368
Govinda Bhat: 573
Govindakutty Kurup, P: 494
Govindarajan, V. S: 317, 327,
328, 354, 361, 362, 370-372, 404,
412, 413, 502, 545
Grasser, G: 355
Griffith, W: 91
Grist, D. H: 36, 224
Guerraro, L. M: 394
Guha, S. R: 358
Handa, K. L: 385
Hanumanthappa, S: 441, 442
Harcharan Singh: 329, 356
Henry, T. H: 318
Hooker, J. D: 207, 208, 226,
227, 295.
Hooper, D: 357
Howes, F. N: 359
Hrishi: 92
Hrishikesan Nair, N: 37
Hsiao-Liang, L: 395
Hutchinson, J: 228
Hwang, J. C: 390
Ishikawa, I: 319
Iswara Bhat, P. S: 93, 135, 136,
495
Iyengar, N. V. R: 372
Iyer, A. K. Y: 38
Jackson, B: 227
Jacob, K. C: 229
Jahns, E: 396-399
Jagaraj Singh: 358, 364, 365
Jallel, S. A: 361
Janaki Ammal, E. K: 214, 215
Jayaweera, D. M. A: 400
John, T. J: 137
Joshi, N. V: 496-498

- Joshi, S. G: 496-498
Kalbande, A. R: 138
Kalidas Nag: 94
Kalyanasubramanyam, S: 507
Kalyanikutty, T: 528
Kannamagara, A. W: 574
Kantha, S: 434
Kapur, A. P: 435
Kariyone, T: 401
Karth, A. R. S: 320
Kasaragode, R. S: 492
Kaul, K N: 230
Kelkar, N. V: 139
Khadikar, V. B: 321, 322
Khandige, S. B. (See Shama Bhat, K.)
Khanolkar, V. R: 402
Khundkar, M. H: 314-316
Kibe, N. M: 433, 493, 500
Kirthikar, K. R: 403
Krishnamurthy, K: 142, 143,
501
Krishnamurthy, S: 284-287
Krishnappa, K. T: 144-146,
231, 442
Krishnan Nair: 546
Kukla, A. S: 323
Kumar, S. N. S: 156, 249, 250,
437, 445, 512
Kumari, H. L: 324, 404, 502
Kurz, S: 232
Kwasniewski, V: 405
Lakshmanachar, M. S: 147,
575-579, 612-14
Lal, A: 503
Lal, R: 434
Leburn, G: 95
Leela Sachdev: 96
Lever, R. J. A. W: 438, 439.
Lewis, F: 360
Lily, V. G: 504
Linnaeus, C: 233, 234
Lushington, A. W: 39
Macmillan, H. F: 40
Madhava Rao, V. N: 284-287
Mahabale, T. S: 235
Maheswari, P: 41
Marnon, J: 325
Market, R. E: 326
Martindale: 406
Marudarajan, D: 42, 236, 505,
507, 547.
Mashalkar, S. R: 155
Mathew, A. G: 317, 327, 328,
361
Mathew, P. M: 187
Mathew, T: 128
Mathur, S. S: 333
Mayer, F. J: 290
McCurrach, J. C: 237
McRaeW: 508
Meenakshi, S: 43
Mhaskar, M. H: 382, 407
Miller, N. C. E: 440
Milsum, J. N: 44
Modi, J. P: 408
Molegode, L: 45
Mollison: 148
Moore, H. E. Jr: 238, 240
Moriara, M. J. S: 452
Mukerjee, B. B: 409
Mundkur, B. B: 509
Murthy, K. N(I): 25, 26, 46,
97, 149, 150, 201-203, 241-246,
267, 307
Murthy, K. N(II): 231, 441, 442

- Murthy, N. V. N: 538
Murthy, S. S: 580
Nadkarni, A. K: 410
Nagarajan, B: 442
Naidu, G. V. B: 47, 48, 98,
 151-156, 247-250,
 443-445, 511-513
Nair, M. C: 49
Nair, M. R. G. K: 450, 451
Nair, P. K. S: 157
Nair, R. B: 251-253, 258, 446-
449, 460, 516, 529
Nair, V. K: 504
Nambiar, K. K: 50-56, 158-
 167, 510, 581-583
Namboodiri, E. S: 362
Narasimha Iyengar: 168, 169
Narasimhan, M. J: 514, 515
Narayana, N: 433, 493, 500
Narayana, R: 320
Narayananamurthy, D: 329, 363-
 366
Nayar, P. N: 254
Nayar, S. L: 384
Nayudamma, Y: 305, 306, 350
 351, 367
Neal, M. C: 57
Neves, C. M. B: 452
Ninan, C. A: 187
Omprakas: 58
Pade, J. S: 99, 100
Pailey, P. V: 517, 540
Pandalai, K. M: 504
Pandya, H. G: 322
Panikkar, M. A: 170
Panse, V. G: 615
Parukkutty aruah: 332
Parameshwar, N. S: 171
Patel, G. I: 129, 139, 255, 453,
 499, 518
Pathak, S. P: 333
Patwardhan, V. N: 334
Paul, S. C: 172, 174
Paulose, T. T: 59-62, 147
Penzer, N. M: 101
Petelot, N. M: 63
Pillai, G. B: 454, 455
Pillai, P. P: 368
Pillai, S. K: 256
Pillai, S. S: 175
Plippance, F: 64
Puri, S. S: 584
Puttarudriah, M: 456-459, 466
Quinsumburg, E: 257
Radha Menon: 258, 448, 460,
 517, 519-529
Raghavan, V: 65, 66, 196, 197,
 259-267, 307, 335, 336
Kai, B. K: 434
Rajadurai, S: 305, 306
Rajagopal, N. S: 337
Ramachander, P. R: 131
Ramachandran, S: 461
Ramakrishna Ayyar: 462
Ramakrishna, T. S: 530, 531,
 545, 548
Raman, V. S: 204, 205
Raman Moosad, C: 585
Rama Rao: 268
Ranganthan, S N: 334
Ranganathan, V: 366
Rao, K. S. N: 93, 449, 463-465
 516, 518, 532-536
Rau, M. K. V: 269, 537
Ravindran, T. C: 577
Rege, N. D: 433, 493