Ceylon Cocon. Plrs. Rev. (1974) 7, 59-73.

ACTIVITIES OF THE COCONUT RESEARCH INSTITUTE DURING 1973

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The powers and functions of the Coconut Research Board established under Section 58 (1) of the Coconut Development Act No. 46 of 1971 have been specified in the Order published by the Minister of Plantation Industries in the Government Gazette of 30th March 1972 as follows:

1. The conducting and furthering of scientific research in respect of the growth and cultivation of coconut palms, the growing of other crops and the engagement in animal husbandry in coconut plantations and the prevention and cure of diseases and pests.
2. The establishment and maintenance of experimental stations and nurseries.
3. The conducting and furthering of scientific research in connection with the processing and utilization of coconut products.
4. The establishment and maintenance of pilot plants for the processing of coconut products and the fabrication of experimental processing equipment.
5. The training of advisory and extension workers to assist the coconut industry and
6. The guiding and advising of the coconut industry on all matters of a technical nature.

Eleven meetings of this Board were held during 1973 and the following served on the Board of Directors during that year:

Dr. J. Sivapragasam (Chairman)
Mr. A. J. W. Balthazaar
Dr. J. W. L. Peiris
Mr. A. Edmund Perera
Dr. O. S. Peries
Dr. U. Pethiyagoda and
Mr. P. W. R. de Silva.

GENERAL II.

(1) Mr. V. M. F. Alles was appointed Officer-in-Charge of the Agrostology Division with effect from 20th July 1973.

(2) Dr. P. Loganathan was appointed Soil Chemist with effect from 8th August, 1973.

(3) Mr. T. S. Balakrishnamurti, Research Assistant, was promoted Research Officer during the year and the appointment was made retrospective to 72-05-01.

(4) Mr. V. Abeywardena, Biometrician, was promoted to Class II of the Executive Grade during the year and the appointment was made retrospective to 72-05-01.

(5) Mr. R. Mahindapala, Research Assistant, left for U.K. on 73-09-25 to follow a course of post-graduate studies in Plant Pathology at the University of Exeter.

(6) Mr. B. H. Rohitha was appointed Research Assistant-in-Charge of the Crop Protection Division with effect from 73-09-25 on Mr. Mahindapala's departure to Britain on overseas training.

(7) Mr. H. I. M. V. Vithange, Research Assistant resigned from the service of the Institute with effect from 73-10-01 to take up an appointment in Australia.

(8) Throughout the year under review Dr. P. R. Dharmadhikari, F.A.O. Entomologist, continued to be in charge of the 2 year FAO/UNDP Biological Control Project (No. CEY./72/038) which commenced on 72-10-29.

(9) The vacant post of Publications Officer was up-graded and re-designated Publications/Publicity Officer. Mr. M. S. S. Fernandopulle was appointed to this post with effect from 73.03.01.

(10) *Coconut Crops.*—Consequent on the severe drought conditions that prevailed during the preceding year, 1973 has been an extremely poor year for the coconut industry from the point of view of production.

An estimate prepared by the Institute revealed that the production of coconut for 1973 was 2,272 million nuts representing an unprecedented decline over the previous years. In relation to 1972 (3,073 million nuts) the decrease is 26.1%. In terms of the average production for the past 5 years (2771 million nuts) the drop is 18.0%. Sri Lanka's peak production estimated at 3,148 million nuts was recorded in 1964. The 1973 figure is lower than this by 27.8%.

The reflection of the decrease in production in 1973 (over the preceding year) on the volume of exports amounts to 66.5%. In terms of the average for the past 5 years, the exports are lower by 59.0% and in terms of the 1964 record there has been a sharp decline of 74.1%.

Despite the low volume and total value of coconut products exported, an all-time record in prices was recorded during 1973. The previous record for prices amounting to Rs. 302.62 per 1,000 nuts was registered in 1968. In relation to this the figure for 1973 (Rs. 343.79) is higher by 13.6%, and also higher by 61.6% in comparison with the previous year. The average price of coconut products exported for the past five years has been 263.67 per 1,000 nuts. The 1973 figure is higher than this by 30.4%.

III. NOTES ON REPORTS OF DIVISIONS

The following notes draw attention to points of interest relating mainly to the work of the Research Divisions of the Institute during the year.

Soil Chemistry Division

A. Field Experiments

(1) Ten long term field experiments were maintained at Bandirippuwa, Ratmalagara, Pothukulama, Bingiriya, Veyangoda, Dankotuwa and Rathgama.

Results of interest are:

(*a*) The B, Zn, S experiment at Monrovia Estate showed that while sulphur has had a negative effect on the weight of husked nut and fresh kernel, the total yield of nuts and copra responded positively. These results suggest that sulphur had in effect reduced the size of the fruit but increased the overall yield.

(*b*) An examination of copra samples from Mawatte experiment for rubberiness showed that there was no deficiency of sulphur in the samples from the $(NH_4)\ SO_2$, $NH_4\ NO_3$, $NaNO_3$ and control treatments. One out of the two samples from the urea treatment however gave some indication of sulphur deficiency.

(*c*) An outbreak of red weevil was detected at the PRS young palm experiment in January 1973, affecting about 140 palms. Preventive measures were taken and the outbreak was brought under control.

(2) Fertilizer requirements of (T×D) coconut hybrids.

A new experiment was laid down to determine the growth and yield response curves of young hybrid palms to the application of an inorganic fertilizer mixture and assess the optimum level of fertilizer needed on a sandy soil at Bandirippuwa Estate. The seedlings were planted in December 1973.

(3) Pot experiment to study the relative efficacies of Eppawala phosphate fertilizer and Saphos phosphate using *Paspalum Commersonii* as a biological indicator.

The first harvest was taken on October 22nd and the second harvest on November 29th. With the second harvest the experiment was terminated. While the data of the first harvest indicate no difference in response between the two sources, the data of the second harvest show that saphos phosphate is superior to Eppawala phosphate. Analysis of plant and soil samples drawn from this experiment are in progress.

(4) Experiments on micronutrient requirements of coconut seedlings.

(*a*) The effect of micronutrients on the rate of sprouting and growth of seedlings was studied by injecting solutions of micronutrients into the husks of seednuts. The data show that while zinc and copper increased the rate of germination, and excess of boron decreased the rate of germination.

(*b*) A sand culture experiment to study the effects of the deficiencies of micronutrients (boron, zinc, iron, manganese, copper) was concluded. Deficiency symptons were observed for boron, iron and copper. The Chemical analyses of plant parts drawn from this experiment are now in progress.

B. Laboratory Investigations

(1) Chemical analyses of soil samples from model profiles of coconut growing areas were carried out to determine action exchange capacity, base saturation, total nitrogen, total carbon, available phosphorus and pH.

(2) Estimation of sulphur in leaf samples from Marandawila, Walahapitiya, Horrekelly and Monrovia Estates.

(3) Estimations of sulphur in kernel and nut water samples from Monrovia Estate.

(4) Estimations of Ca, Mg, Zn, Cu and Fe in kernel and cotyledon samples of amputated seednuts from the pot culture experiment.

(5) Studies on analytical methodology for the estimation of available sulphur in soils.

C. Soil Surveys

(1) Soil surveys of coconut growing areas:

(*a*) Detailed reconnaissance survey of Dandegamuwa 1" sheet (50% of the 1" sheet completed).

(*b*) Detailed reconnaissance survey of Wariyapola 1" Sheet (completed).

(*c*) Detailed reconnaissance survey of Negombo 1" sheet (completed 16 soil series were found).

(2) Detailed reconnaissance soil survey of the Soil Chemistry Division Experimental plots.

Ratmalagara Estate	(two plots)
Mawatte Estate	(one plot)

(3) Isolated seed garden Ambakelle—Detailed reconnaissance soil survey of the barrier on the northern and eastern sides.

(4) Miscellaneous.

Soil survey of areas to determine the suitability of land for hybrids and the *typica* form of coconut.

Division of Botany and Plant Breeding

1. *Controlled Pollination Work:*

The pollination programme at Bandirippuwa Ratmalagara, Walpita, Ambakelle, Kiniyama, Andigedera and Achchitotam Estates was run to schedule. Work at Marandawila Estate was suspended to enable the palms to recover and only pollen collection from prepotent palm was carried out at this station. A new pollination unit on 350 palms was commenced at Horrekelly Estate, Kudawewa. For the first time, extensive use has been made of foreign germplasm in the form of pollen from Ivory Coast, kindly supplied *gratis* by the IRHO. Emasculation work in the dwarf palm block (field number 5, ISG Ambakelle) was suspended to obtain dwarf green (selfed) seednuts in order to expedite the Seed Garden Expansion Programmes. A summary of the pollination work is given below:

Total number of female parents ..	1,330
Total number of female flowers pollinated:	
Typica × *typica*	13,453
Typica × *pumila*	183,062
Typica × Ivory coast dwarfs ..	35,836

5806 *typica* × *typica* and 25,000 *typica* × *pumila* seednuts from crosses done in 1972 were harvested this year.

398 ampoules of *typica* (prepotent) pollen and 271 ampoules of *pumila* pollen were issued to the private sector.

2. *Research Nurseries:*

The undermentioned quantities of seednuts were planted in the Research Nurseries at Bandirippuwa and the Seed Garden, Ambakelle.

Typica × *typica*	*Typica* × *pumila*	*Pumila* × *typica*	*tall OP*
6,491	26,751	16,023	2,600

12,686 dwarf yellow (*eburnea*) and dwarf green (*pumila*) seednuts have been planted to provide the material for the Ambakelle, Seed Garden Expansion Project. An additional 2,371 seednuts were planted at Ratmalagara for the same purpose.

This year 41,462 hand pollinated seedlings have been issued consisting of 13,005 *typica* × *typica*, 18,308 *typica* × *pumila* and 10,419 *pumila* × *typica*.

3. *Mother Palm Seed Supply:*

1,508,650 selected seednuts were supplied to the Planting Division Nurseries. Re-selection work was completed on St. Annes, Mampuri and North Western Fruit Garden and 3,105 mother palms were re-selected.

4. *Isolated Seed Garden, Ambakelle:*

Besides maintaining the 135 acres planted prior to 1966 and 50 acres of land cleared and planted in 1972, 30 acres were cleared and planted in May/June 1973, and an additional 30 acres cleared for planting with favourable weather conditions. Two reservoirs have been constructed and prospecting for ground water is now being done by the Division of Land Use. It is hoped to have a co-ordinated irrigation scheme for Ambakelle if the preliminary investigations are successful.

5. *Second Seed Garden:*

A part of Horrekelly Estate, Kudawewa, has been identified as suitable for a Second Seed Garden for the mass production of *dwarf* × *tall* hybrids and a recommendation has been made to this effect.

6. *Field Experiments:*

The field experiments and observation trials at Bandirippuwa (14) Ratmalagara (8) Pothukulama (10) and Walpita Progeny trial were maintained during the year.

7. *Issues of Variety Seednuts:*

2,631 seednuts have been issued consisting mainly of dwarf king coconuts and king coconuts.

8. *Laboratory and Field Investigations:*

(*a*) Study of pollen characteristics from the progeny of the Diallel Cross Experiment (Pothukulama) is being continued.

(*b*) The observation trial on size (volume) of hybrid seednuts and quality and performance of resulting seedlings is being continued.

(*c*) A trial to study the root system of *tall* × *dwarf*, *dwarf* × *tall* and *tall* × *tall* seedlings in relation to observed differences in susceptibility to drought has been initiated.

(*d*) The study on the relationship between stomatal density and yield has been temporarily stopped due to difficulties encountered in field work.

(*e*) The investigations on the extent of parthenocarpy in the dwarf variety of coconut and the genetics of the pasture grass *Br. miliiformis* have been suspended following the resignation of the Research Assistant who was handling these investigations.

Chemistry Division

1. *Study on Diurnal and Seasonal Fluctuations of Nutrients in Foliar Tissue:*

Studies on the diurnal and seasonal fluctuations of nutrient concentrations in the leaves of adult *typica* palms which commenced in 1972 were concluded during the year, with two more samplings in January and February.

Out of the 1,800 samples collected from this experiment, 650 have been analysed for nitrogen and 320 samples for P, K, Na, Ca and Mg. The analytical work is being continued.

2. *Study on Annual Exhaust of Soil Nutrients:*

Studies on the estimation of the annual exhaust of the macronutrients (N, P, K, Ca, & Mg.) from the soil by adult *typica* palms, which commenced in June 1972 were concluded in April after consolidating data for six harvests. An assessment was also made of nutrient losses associated with the abscission of fronds. The results of this work will be reported elsewhere.

A similar study on adult (T × D) hybrid palms was started from the 3rd (May/June 1973) harvest and is being continued.

3. *Toddy Yield from (T × D) Hybrid Palms:*

Records of toddy yields from 12 healthy hybrid palms from the Botanists' hybrid block at Bandirippuwa Estate were maintained for the eight-month period May to December.

4. *Analytical Techniques*

Available rapid methods of chemical plant tissue analyses were tested out, and a dry digestion procedure has been found satisfactory for plant tissue sampled from the coconut palm.

5. *Comparative Studies on Tall and Hybrid Palm Toddy:*

Samples of toddy collected from tall and hybrid palms using lime *Vateria* acuminata bark (separately as anti-ferments) revealed no significant difference in respect of their sugar contacts.

6. *Experiments on Toddy Distillation and the Manufacture of Arrack:*

A series of laboratory scale experiments were carried out during the year on various aspects of toddy distillation and the manufacture of "special arrack" employing rectified spirits.

The results which show promise of practical application will be reported in full elsewhere.

7. *Technical Advice on Bottling Palmyrah Toddy:*

On a request made by the Ministry of Finance, the Research Assistant, Chemistry Division, working on toddy, visited the Chankanai M.P.C.S., Ltd., and gave technical advice on the bottling of palmyrah toddy.

Agrostology Division

1. *Pasture Studies*

During the year five new experiments were set up (all during the Yala season) as follows:

P_{88} *at Bandirippuwa Estate—*

To compare the productivity of three fodder species at high levels of N fertilization under coconut.

P_{89} *at Bandirippuwa Estate—*

To investigate the effect of levels of N fertilization, intensity and frequency of defoliation on the productivity of Pusa Giant Napier under coconut.

P_{90} *at Bandirippuwa Estate—*

To compare the productivity of three pasture species at high levels of nitrogen fertilization under coconut. (Repeated attempts at establishing *Brachiaria ruziziensis* under this experiment have proved unsuccessful. However, attempts are being made to introduce this pasture once again).

P_{91} *at Ratmalagara Estate—*

To investigate the effect of intensity and frequency of defoliation on the productivity of three fodder species under coconut.

P_{92} at Kirimetiyana Estate—

(i) To determine the optimum levels of nitrogen, phosphorus, and potassium required for growth and productivity of Pusa Giant Napier under coconut.

(ii) To investigate the effect of Pusa Giant Napier fertilized with different levels of N, P, K on the yield of coconut when grown in association.

All long term experiments (P_5 P_{21}, P_{22}, P_{70}) started by earlier workers were managed to schedule during the year.

Experiments P_{85}, P_{86} and P_{87} at Kuliyapitiya, Kobbeigane, and Baddegama respectively to study the effect of five levels of nitrogen (applied as ammonium sulphate) on the productivity of *Brachiaria miliiformis* under coconut at three different rainfall regimes continued up to July. Due to lack of cooperation from the estate owners at Kobbeigane and Baddegama, action is being considered to abandon those experiments.

2. *Subsidiary Food Crop Studies:*

During the year six new experiments were set up on the above, (two during Yala season and four during the Maha season) as follows:

Experiments set up during Yala Season:

Experiments S_1 at Ratmalagara Estate—

Studies on the growth patterns of Soyabean, Green Gram, and Black Gram under coconut as influenced by differences in the availability of light, moisture and nutrients within the coconnt square.

Experiment S_2 Bandirippuwa Estate—

An investigation on the effect of nitrogen fertilization and plant density on the yield of manioc,

This experiment is being carried out in collaboration with Dr. H. B. M. Gunasena of the Faculty of Agriculture, University of Sri Lanka, Peradeniya.

Experiments set up during Maha Season:

Experiment S_3 at Ratmalagara Estate—

To investigate the effects of nitrogen fertilization and planting density on the growth pattern and yield of Soyabean (*Variety-Bragg*) under coconut.

Experiment S_4 at Ratmalagara Estate—

International Soyabean varietal Trial

'INTSOY'—Ratmalagara, Code No. AAA 73

Experiment S_4 at Bandirippuwa Estate—

To determine the optimum spacing for Soyabean under coconut.

Experiment S_5 at Ratmalagara Estate—

This is similar to experiment S_5 and has been set up at Ratmalagara Research Station.

Ramie (Boechmeria Nivea)

Preliminary studies on this crop were undertaken during the latter part of the year. It is proposed to lay down experiments in the wet zone during 1974.

Food Production:

With the accent on food production, action was taken to bring as much land as possible under food crops in the 21 acre block at Bandirippuwa Estate, planted with hybrids. With the Maha approximately 3 acres which could be cleared were established with chilli, green gram, beans and soya.

Intercropping on Estates:

Plans were drawn up to carry out intercropping trials on 10 acre blocks with 6 locations each in the Wet, Dry and Intermediate Zones. A sum of Rs. 350,000/- was released by the Ministry of Planning for these trials. These experiments will be carried out in 1974 after the appointment of the required staff of Experimental Officers and Field Assistants. During December over 20 Estates expressing willingness to participate in this Scheme were inspected to ascertain suitability.

Animal Husbandry Unit:

The Animal Husbandry report of the Division as at 73-12-31 is as follows:

	Bandrippuwa Estate	*Ratmalagara Estate*	*Total*
Milk produced (pints) ..	103,745	4,320	108,065
Herd Strength ..	278	76	354
Births	101	35	136
Deaths	36	15	51
No. of A. I.	80	—	80
Animals sold—			
Bulls	2	—	2
Cows	64	—	64
Heifer Calves ..	3	—	3
Bull Calves ..	72	—	72

The rotational cross-breeding programme recommended by Professor Mahadevan (Dean of the Faculty of Agriculture, University of West Indies) is being followed. The F_1 progeny of Sinhala × Jersey has been crossed to the Sindhi.

General Activities:

During the year the Officer-in-Charge of the Division and the Research Assistant attended the In-Service Training Course on Intercropping held at Gannoruwa and conferences on Rubber, Ramie and Soyabean.

Crop Protection Division

A. Insect Pests

1. *Promecotheca cumingi*

Biological Control Laboratory in Colombo continued to function during 1973. The following parasites were bred and released:

1. *Pediobius parvulus*
2. *Dimmokia javanica*

During the course of the year it was apparent that the pest was under control and recoveries of the parasites were made in the field. Continuous observations were kept in the *P. cumingi* infested areas, and leaf samples with larval instars were brought to the Laboratory from such areas for the breeding of the parasites. Availability of material for parasite breeding became progressively meagre. A survey to assess the incidence of the pest was carried out during the year. Dr. P. R. Dharmadhikari, F. A. O. expert from the Commonwealth Institute of Biological Control, was in charge of the biological control programme throughout the year.

2. *Coconut Caterpillar (Nephantis serinopa)*

Parasite breeding programme was continued at the two insectaries at Headquarters and at the Parasite Breeding Station at Mylambavelly. A new egg parasite, *Trichogramma braziliensis*, was introduced into the field. Breeding of *Perisierola nephantidis*, *Nythobia* sp, *Spoggosia bezziana*, *Brachymaria*, *Trichogramma braziliensis* was carried out at Headquarters. No field recoveries of *Trichospilus* and *Tetrastichus* were observed and their multiplication was reduced to a minimum, though nucleus cultures were maintained in the laboratory. *Perisierola* and *Nythobia* have shown good signs of field recoveries. *Trichogramma braziliensis*, *Nythobia* and *Spoggosia bezziana* were bred at the Parasite Breeding Station. Towards the end of the year infestation in the North Western Province showed signs of declining. Population studies of the pest intensity were carried out in the Eastern Province under the guidance of the F.A.O. expert.

3. *Red Weevil (Rhynchophorus ferrugineus)*

The incidence of the pest showed signs of increase towards the end of the year and this could be attributed to the fairly long drought that prevailed. New infestations were reported from the Vanathavillu colonisation scheme. "Azodrin 60" had to be recommended for its control in place of "Metasystox" as the latter ceased to be available at many places. The trap to collect the weevils was continued to be tested. The estates where *Platymeris levicollis* was released against Red Weevil were kept under constant observation.

4. *Coconut Scale (Aspidiotus destructor)*

A fresh report of the pest was received from Ravita Estate and spraying was carried out for its control. The experimental programme on the mass breeding of coccinellid beetles was continued at headquarters.

5. *Black Beetle (Oryctes rhinoceros)*

No fresh infestations of this pest were reported.

6. *Other Pests:*

No outbreaks of *Parasa lepida* and *Xyleborus similis* were reported during the year under review.

B. Diseases

1. *Bud Rot Disease:*

Several reports of this disease were received during the year. Incidence was observed mostly in the Southern Province. Axil placement of fungicidal bags and axil placement of fungicidal soap were continued, and they were found to be effective.

2. *Stem Bleeding:*

The disease was observed at Pothukkulama Research Station and at Halmellagara Estate, Hunnalembuwa. The affected palms were treated with copper fungicide.

3. *Ganoderma:*

This was detected newly in the Southern province. It is proposed to carry out some research on this problem.

4. *Leaf Scorch Decline:*

No new reports of the disorder were received during the year. Experiments to determine the association of soil drainage with the leaf scorch condition were continued at Kirimetiya and Ratmalagara Estates.

C. Assessment of Pest & Disease Position in the Island

Two questionnaires pertaining to pests and diseases on coconut estates were printed and sent to coconut growers in the Island. A fair number had replied and it is expected to analyse the particulars, during 1974.

Miscellaneous:

1. Dr. F. J. Simmonds, Director, Commonwealth Institute of Biological Control, in one of his visits to Sri Lanka, (at the end of 1973) brought a consignment of 2 leaf eating caterpillars which feed on two economically important weeds, namely, *Eupatorium* and *Salvinia.* These insects are being bred in the Laboratories at headquarters and the Biological Control Laboratory, Colombo under the supervision of Dr. P. R. Dharmadhikari.
2. Four, 3 month fellowships were arranged at the Commonwealth Institute of Biological Control in Bangalore, under the provisions of the U.N.D.P. Biological Control Project. Whilst Mr. T. M. F. Hassan, Technical Assistant and Mr. P. A. C. R. Perera, Senior Technical Assistant have already completed their training at the C.I.B.C., Mr. M. S. Velu, Technical Assistant (who was awarded the third fellowship) left for India at the end of the year.

Biometry Unit

Statistical Work:

Routine statistical work of the Research Divisions were attended to. Designs were provided for a number of new experiments.

Research:

(i) *Calibration Trial.*—The Calibration trial was maintained uninterrupted.

(*ii*) *High & Low Yielding Palms.*—The study of the distinguishing characters of high and low yielding palms was completed.

The same data were subjected to a "Principal Component Analysis" in order to determine whether the numerous quantitative characters expressing "yield" can be expressed in a fewer number of functions or vectors.

(*iii*) The yield components of different cultivars of coconut were examined for the Botanist.

(*iv*) *Watering Experiment.*—The watering experiment wherein water was supplied at various intensities and frequencies to palms during periods of drought without interruption.

(*v*) *Drought Index.*—The analytical work towards improving the "drought Index" (put out recently by us as an interim measure) received considerable attention during the year. The "sweep out" statistical approach adopted through the Computer is showing good results.

Agri-Meteorology:

The three agri-meteorological stations at B/E, R/E and I.S.G: were maintained satisfactorily.

General:

The Biometrician continued to function as Consultant Biometrician to the Rubber Research Institute of Ceylon.

As visiting lecturer at the Vidyodaya campus, the Biometrician delivered lectures both to the undergraduates as well as to the students for post-graduate diploma course.

Planting Division

1. *Seed-nuts:*

The Planting Division maintained 14 nurseries during the year. Land at Pallekelle, Kandy was obtained to open a new nursery, making a total of 15 nurseries at the end of 1973.

A total of 1,298,505 seednuts was laid down in the nurseries for seedling issues during the May/June and October/November 1973 seasons as follows:

Season	*Seed-nuts*
May/June 1973	367,710
October/November 1973 ..	930,795
	1,298,505

2. *Seedlings:*

Orders were booked and payments were received in 1973 for 854,204 seedlings for undermentioned issue seasons:

Season	*Seedlings*
October/November 1971 ..	370
May/June 1972	150
October/November 1972 ..	45,477
May/June 1973	197,519
October/November 1973 ..	610,688
Total ..	854,204

The actual issues of seedlings during 1973 from the 14 nurseries amounted to 904,927 and their distribution in repect of the various seasons is as follows:

Season	*Seedlings*
October/November 1971 ..	170
May/June 1972	50
October/November 1972 ..	204,359
May/June 1973	221,460
October/November 1973 ..	476,560
May/June 1974	2,328
Total ..	904,927

Publications/Publicity Unit and Library

1. *Journals:*

The following issues of the C.R.I. journals were published during the year:

(*a*) *Ceylon Coconut Quarterly*
Volume XXIII Nos. 1/2
Volume XXIII Nos. 3/4

(*b*) *Ceylon Coconut Planters' Review*
Volume VII No. 1

(*c*) *Pol Pawath*
Volume V No. 3

2. *Advisory Leaflets:*

Wherever necessary C.R.I. Advisory Leaflets were revised and/or reprinted in order to up-date the subject material and to maintain the stock position.

A new leaflet (No. 52) on *Promecotheca cumingi* was printed in Sinhala, Tamil and English.

3. *Library:*

152 new books have been added to the library making a total of 3,252. No new subscriptions for journals have been entered, but eight new journals have been included in the stock under exchange agreements. The total number of journals acquired on subscriptions and on exchange stand at 350.

Under the ODA Book Presentation Programme the British Council kindly agreed to donate to the Institute books and journals (of our choice) to the value of £ 1750. A request has already been made for 160 books and subscriptions for 32 journals under this programme.

Library Bulletin:

Four issues, at quarterly intervals of the Library Bulletin, compiled (in mimeo form) by the Librarian were produced during the year.