

Tamil Arasu

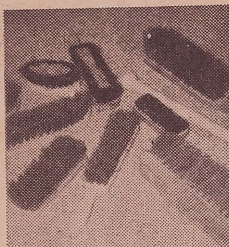
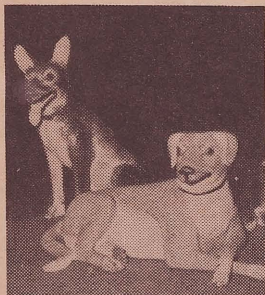
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Tamil Arasu

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THE EYE OPENER



CERAMICS EXHIBITION AT RAJAJI HALL

The Department of Industries and Commerce, Chepauk Madras-5 is holding from 25th February 1974 to 12th March, 1974 the 9th Annual display and sales of art and utility ceramics.

The items on display and sales are products manufactured at the Clay Toys Unit at Perambur and Art Pottery Unit at Vridhachalam. These are two small training institutions which impart one year training to 15 students having aptitude in art. The Artists engaged in these units not only impart training to the students but also evolve new designs. There are more than 1,500 designs so far evolved in art and utility items including over 300 new designs produced during 1973.

The Department of Industries and Commerce, by holding these annual exhibitions, have been able to generate an interest in public for art-ceramics and for new designs in utility items.





“ WE BELIEVE IN DOING OUR BEST FOR THE STATE ”

C. M.

Dr. M. Karunanidhi, Chief Minister, highlighted the following points in his reply to the debate on the Governor's address in the State Assembly on 28th January, 1974.

“The Governor's address starts with a melancholic note in regard to the passing away of Thanthai Periyar, a great leader of Tamils, a frontline leader in the rationalist movement and above all, a social reformer par excellence among the galaxy of social reformers in India, thereby respecting the memory of the departed leader. Extending and expressing respect alone would not do. On the other hand, we must spend our time and energy within our capacity to root out from this land the religious-oriented caste-ridden evil habits—a principle he cherished all along his public life. And to put an end to these ignominious and insidious practices, we must resolve in unanimity and as one man to give a deep burial to the superstitious beliefs prevalent in our society.

The Chief Minister cited the following “successes” of Tamil Nadu Government in securing sanction for projects :—In the National Development Council deliberation on Draft Fifth Plan held in Delhi in 1970, I emphasised in my speech that unless and until the Salem Steel

Plant—the long-felt request of the people was sanctioned, I would withhold my consent to the Plan on behalf of the people of Tamil Nadu. I do not cite this as a matter of pride but to bring to lime-light the fact that only after vigorous and virulent argument with the Centre we got the immediate sanction for the Salem Steel Plant which was subsequently inaugurated by the Prime Minister herself.

“The Veeranam Project, though not a Central Project, was got sanctioned after one years relentless “fight” with the Centre for the same.

“None should forget the fact that a number of times the State Ministers and officials flew to and fro between Madras and Delhi to meet the Central Ministers and the Prime Minister so as to put them in clear and vivid perspective of the technical feasibility and necessity of the Tuticorin Thermal Power Plant in the interest of the State, as also the fact that only after the arduous journey and intelligent arguments with the Centre the scheme was got sanctioned.

“So also the Rs. 100 crores fertiliser complex under the banner of Joint Sector at Tuticorin—the first phase of its work has already

been put on stream—has been got sanctioned from the Centre only after strenuous argument and stubborn fight with the Union Government.

“With regard to the scheme of Second Mine cut at Neyveli, we have put forth our pleas many a time. And it is not good forgetting this solid fact. No sooner was the news that the Second Mine-cut at Neyveli was not included in the Draft Fifth Five Year Plan appeared in the news papers than our official emissaries were sent to Delhi. I also contacted the Central Government through telephone. After that, we have unanimously adopted a resolution in this august House requesting the Centre to include the scheme in the Fifth Five Year Plan. And the Minister Thiru K. Rajaram took the resolution in person to Delhi and presented it to the Prime Minister on the same evening. Not only this. Subsequently in the National Development Council meeting held at Delhi on 9—12—1973 I emphatically pointed out in my speech that the future of Tamil Nadu won't be prosperous if our power generation schemes are not planned well ahead. On this statement of mine, Union Minister Thiru Dhar spoke thus :—

“I would assure the Chief Minister of Tamil Nadu that as far as

the expansion of power based on lignite is concerned, this matter has been discussed by the Finance Minister and by me with the Ministers from both the Federal Republic of Germany and also the German Democratic Republic who have great experience in exploitation of low grade coal as we have in the case of Tamil Nadu. I would also draw his kind attention to the series of meetings we have had with the Chief Minister, with his officers who have been very cooperative in ensuring that nearly a thousand megawatt of power is established at Tuticorin and for this, it will be recalled we have taken into account the supply of coal by the sea route, through considerable distance at considerable cost. We have also taken into account the establishment of Kundah and Solaiyar Projects. I mention this in order to allay apprehensions, if there was any room for it, for my distinguished friend, Mr. Karunanidhi, that in the matter of development, he need have no apprehensions whatsoever from us, from the Planning Commission, because in his case, and if I may say so, in no other case, I always have an enquiry or two which I receive from the Prime Minister."

"The Deputy Chairman of the Planning Commission, Union Minister Dhar said these words in the National Development Council having faith in us. Not only this. On 1st January, 1974 Thiru Madhavan and I expressed the same opinion in the Planning Commission meeting. After that, the situation has improved much instilling hope in us to the extent that the Planning Commission has come around to okay the scheme. The reason for raising all these points here is to bring to the Assembly the truth about how many times we have approached the Centre for these schemes, and how the Centre feels about our way of approach, praise us and give consideration to our requests.

"The State has secured approval for the Rs. 5 crores Pamban Bridge from the Centre only after intense argument. So I am in dutybound to point out here that there is no slackening nor dearth of efficiency in our way of approach.

Fifth Plan outlay

"Following this, prominent reference has been given to the Fifth Five Year Plan in the Governor's

address. At the outset we desired to have the Fifth Five Year Plan outlay at Rs. 1,532 crores and advanced our arguments in support of this outlay. After studied and stubborn argument with the Planning Commission we have submitted draft Fifth Five Year Plan envisaging an outlay of Rs. 1,200 crores. As has been pointed out in the Governor's address, in our discussion with the Planning Commission on 1st January 1974 the Planning Commission pointed out to us that the plan allotment for the first year of the Fifth Five Year Plan would be in the order of Rs. 108 crores. But we argued with the Planning Commission that as we are implementing plan schemes to the extent of Rs. 126 crores in the current year itself, the lesser amount allocated to the first year of the Fifth Five Year Plan is not acceptable to the State. In the National Development Council meeting, I along with the Chief Ministers of Karnataka and West Bengal took strong exception to the circular of the Planning Commission stating that the first year allocation of the Fifth Five Year Plan for the States would be kept at the scale of allotment prevailing in the current year and argued that the same scale of allotment for the first year of the 5th Plan as in the last year of the 4th Plan would retard the tempo of economic activity. And so I pleaded for an allotment of at least Rs. 200 crores. Still, I am confident that the State would be allocated to the tune of Rs. 150 crores for the first year of the 5th Plan.

"Next to it, the Governor's address refers to the Sixth Finance Commission. Here an opinion was expressed to the effect that the State has not presented its case in clear perspective with the Sixth Finance Commission and that we have lost the ways and means facilities that we should get from the Sixth Finance Commission. In this connection, I would like to place before you some of the salient points the State Government placed before the Sixth Finance Commission.

In the memorandum submitted to the Sixth Finance Commission the State has suggested the points :—

that instead of the Finance Commission and the Planning Commission dealing separately with the financial requirements of the State, the Finance Commission itself should solely look into the financial requirements of the State ;

that the States should not be differentiated ad nauseum on the basis of backwardness and instead the Centre should formulate a minimum need programme on an all India basis to help the backward areas ;

that the per capita income should not be held as the basis to distinguish and differentiate the States into well-developed and backward ones ;

that the State's mineral resources must be taken into account and

that aids should not be offered to the States having deficit in budgetary estimates without taking into account the tax efforts the States have taken to close the gap in their budget as it would induce the States to prepare and present deficit budgets without making proportionate effort to tap the tax resources to fill up the deficit.

"I believe it is better to quote the exact words that the State had advanced with the Planning Commission.

"The Planning Commission is aware that we had been, amongst the leaders in additional mobilisation during the Fourth Plan. In fact, our efforts in relation to our per capital income, is the highest in the country, and out of a total additional mobilisation of Rs. 1,058 crores and odd, our State records nearly Rs. 159 crores. Unfortunately, the result of this has been that we have suffered at the hands of the Finance Commission, which rewards a State in direct proportion to its revenue gaps."

Fertilizer Distribution

"Speaking on the Governor's address, members expressed their opinion vehemently about fertilizer. Though the subject would seem to be dull and drab to the members, I wish to deal with the matter of fertilizer situation in some detail.

"According to the present set-up of fertilizer distribution, imported fertilizer is classified as pool item as against the indigenously produced fertilizer being categorised as non-pool item' Taking into account the actual requirements of the States, both pool and non-pool fertilizers are being allotted to them every six month in lumpsum quantity by the Centre demarcating a full year into Kariff and Rabi seasons.

“On account of wide—spread publicity and propaganda more and more farmers are inclined to take to application of fertilizers in their field. And as time rolls by, more and more lands are brought under plough. In this light the States’ fertilizer requirement for 1973-74 was estimated to be in the order of 3 lakhs tonnes. Against this, the State received only 1.80 lakh tonnes of fertilizer.

“In accordance with the decision of the State Government all the pool fertilizers are being distributed through the Thanjavur Co-operative Marketing Federation and the Tamil Nadu Co-operative Marketing Federation with effect from 1st April 1973. Against the State’s demand of 1 lakh 6 thousand tonnes of pool fertilizers for the Rabi season i.e., from July 1973 to January 1974, only 48,837 tonnes were sanctioned to the State. Out of this, the State received 33,907 tonnes only. As many as 3,027 Village Cooperative Loan Societies all over the State distribute the pool fertilizers to the farmers through a card system issued and supervised by the District Collectors. I don’t say that wrong is not committed at one or two places in the distribution of pool fertilizers. For that matter we should not take it for granted that the misdeed done at one or two Village Co-operative Societies are the order of the day all over the State.

“As regards the non-pool fertilizers, they are issued to the agriculturists through as many as 6,428 retail dealers. For the Rabi season in 1973-74, as against the total allotment of 60,000 tonnes by the Centre, the State received non-pool fertilizers only to the tune of 45,278 only. Still a balance of 24,000 tonnes is as yet to be received from the Centre in this respect. In the supply of non-pool fertilizers, as much as 2/3 is distributed through the private fertilizer dealers, over whom the State has little jurisdiction to control or check the malpractices committed by them. Thiru Marimuthu asked whether the State has no power to control them. Of course, the State has certain limited power. And I want to point out those powers here. Here the Honourable members raised the point that fertilizer to be sold at Rs. 55 per bag is being sold at different prices varying from Rs. 110 to Rs. 150 in the open market. In this respect Tamil Nadu Government has written a letter to

end the malpractices committed by the retail dealers of non-pool fertilizers. I wish to read the passage of that letter.

“The entire pool stocks of fertilisers are now being distributed only through the two Co-operative Federations functioning in this State, namely, the Tamil Nadu Co-operative Marketing Federation Limited, and the Thanjavur Co-operative Marketing Federation Limited. These Federations will distribute the fertilisers secured by them, only on the strength of the identity cards, issued to the ryots; and such a course is expected to minimise any malpractices on the part of the Co-operatives. But, it has been found difficult to exercise an effective check on the distribution of non-pool stocks by the private dealers, who get their supplies, from the marketers of the indigenous manufacturers, resort to all sorts of malpractices such as black-marketing, transporting outside the State, etc. Such malpractices are on the increase day by day especially in respect of Urea, which is in great demand. Unless the State Government are equipped with the necessary powers to requisition stocks from the producers and private dealers in an emergent situation, when such a course is warranted, it may prove difficult to ensure a proper distribution of non-pool fertilisers and thereby meet the seasonal demands of the ryots at the right time, and at the notified prices. Section 3 of the Essential Commodities Act, 1955, enables the Central Government to control the price, to regulate supply etc. Section 5 of the Act deals with the delegation of these powers to the State Government.”

The Centre’s reply to our request was received on 7th January, 1974 which runs as follows :—

“In this connection, another point that has to be reckoned with is that under 1966 decision of the Cabinet, private manufacturers have been given freedom of marketing in order to invite more capital into the industry. We feel that all this and vigorous action under the Fertilizer (Control) Order will be sufficient to deal with most of the malpractices at present. The Government of India regret their inability to agree to your request to delegate powers of requisition and distribute fertilisers held with private manufacturers.”

Thiru K.T.K. Thangamani said that the present law can be advantageously used against such offences as many other States take advantage of it in arresting such malpractices. Under the Fertilizer (Control) Order 1957, the State can verify the accounts of the private dealers in fertilizers, check adulteration, if any, in the stuff, and ensure distribution to the genuine farmers. These powers have been delegated to the District Agricultural Officers. But the State has no power to confiscate the fertilizer from a seller indulging in malpractices. Nor has it authority to direct the retail dealers to issue fertilizers only to those who have been issued with fertilizer card by the State Government. Not only this. Under the present act, action can be taken only in the premises of the retail dealers and nothing can be done to divert the stock of the defaulters to the Co-operatives for fair distribution. Moreover, the State has no power to enter the fertilizer manufacturing centres to verify whether adulteration is being done there itself except filing cases against the retail dealers. So we ask for those powers to the State.

“Under the Fertilizer Control Order, we have filed 96 cases in 1971-72, 243 cases in 1972-73, and 179 cases upto 30th November, 1973 in the current financial year. We have been taking action against wrongdoers and to go still further, with vigour, we ask for more power from the State. But I am in dutybound to put the matter in clear perspective that the Centre has given its outright reply to the effect that so as to make the manufacturing units earn enough money to plough back into their business the decision now in effect had been taken in 1965 itself.

“The Centre sanctions only half of what we have asked for and then issues to us still lesser quantity. Further as much as 60 per cent of non-pool fertilizers is to be diverted to private dealers for distribution. This principle should be changed. Given this change of policy and principle for good, the State could ensure fair distribution of the available fertilizers to the actual users.”



In the Administrative Reforms Committee Review Committee meeting held on 20th December, 1971, there was a discussion on the duties and responsibilities of the Extension Officers (Co-operation). The urgent need to form small Farmers' Cooperative Irrigation Societies in the villages, in the light of the new loaning discipline which came into force as a result of the International Development Association Agreement was stressed in the meeting. It was also decided in the meeting that the Extension Officers (Co-operation) should devote their entire time and energy in this vital task and achieve targets fixed by the Head of the Co-operation Department. Further in the present organisation set-up of the offices of the Panchayat Union Councils, there is a separate branch called production Branch among other Branches in each Panchayat Union Office and in the light of the existence of this new Branch the question of adding some more new functions to the Extension Officers (Co-operation) was also given some thought. Having regard to these aspects. The Director of Rural Development has got prepared for the approval of the Government a revised job chart for Extension Officers (Co-operation) in consultation with the Registrar of Co-operative Societies. The Government accept it and in partial modification of the orders issued in the G.O. first read above, they issue following orders:—

I. STATUS AND CONTROL :

(a) The Extension Officer (Co-operation) will be under the full administrative control of the Panchayat Union Commissioner. On all administrative matters, the Extension Officer (Co-operation) shall seek the advice of the Panchayat Union Commissioner and shall abide by his orders.

(b) He will be under the technical control of the Deputy Registrar. On technical matters the Extension Officer (Co-operation) shall seek the advice of the Deputy Registrar, through the Panchayat Union Commissioner and shall abide by his orders.

(c) The Extension Officer (Co-operation) will be subject to all other general rules applicable to other Extension Officers including matters relating to office discipline, arrangement of tours, attendance at meetings, preparation and submission of diaries and all other matters generally applicable to other Extension Officers.

(d) In matters of correspondence and other office routine work, he shall follow the procedure prescribed from time to time.

(e) The Registrar of Co-operative Societies shall be the head of the Department at the State Level and the Deputy Registrar shall be the concerned District Officer in relation to the Extension Officer (Co-operation).

II. Duties :

1. The Extension Officer (Co-operation) shall be responsible for the formation and development of Co-operative Societies in block areas. He shall educate the people in the block about the ideals of co-operation and the objectives of the various kinds of co-operative institutions, make them co-operative minded and ensure that the various co-operative institutions are worked by the people in such a way as to realise their objectives and confer the maximum benefit on the members.

2. He shall participate in all the special functions organised to propagate the ideals of co-operation, for example Membership week, All India Handloom Week, All India Co-operative Week, etc. He shall concentrate on increasing the membership of the Co-operative Societies, and educate the ryots in observing the formalities to obtain credit and other facilities from the various co-operative institutions.

3. He shall impart in-service training to the Gramasevaks in order to educate them to attain sound knowledge of principles and practice of co-operation.

4. He shall participate regularly in the Panchayat Union Council meeting and apprise the members of the various activities undertaken in the Panchayat Union in the field of Co-operation and enlist their co-operation propagating the ideals of co-operation.

5. He shall canvass and process loan applications to be sanctioned by Co-operative Land Development Banks.

6. He shall attend to mobilisation of deposits on behalf of Co-operative Banks.

7. He shall activate the Lift Irrigation Co-operative Societies already registered as well as organise new lift irrigation Co-operative Societies and take steps to draw up schemes for these societies and process loan applications.

8. He shall organise Agro-Engineering and Service Co-operative Centres and assist them to function successfully.

9. He shall assist the District and Taluk Co-operative Unions in collecting their subscriptions and enabling them to function effectively in spreading cooperative education.

10. He shall arrange the preparation of Agriculture Credit Loan applications according to the targets fixed for the agricultural credit societies in Block and get them sanctioned.

11. He shall attend to admission of all agriculturists as members in the Agricultural Credit Societies and the Integration of credit with marketing in the Block.

12. He shall attend to timely supply of fertilisers and pesticides.

13. He shall develop the marketing society serving the Block.

14. He shall check fertiliser accounts of Co-operative Societies in the area every month.

15. He shall organise Co-operative Societies.

16. He shall assist the Rural Housing Societies in the preparation of loan applications and help them to get type designs for house, Lay out plan, etc.

17. He shall inspect four credit societies every month and each Agricultural Bank once in a half year and also Rural Housing Societies in the Block once in a half year.

18. He shall attend periodical inspection of non-credit co-operatives.

19. He shall supervise the construction of godowns by the Societies.

20. He shall attend to disposal of arbitration references.

(Contd. on page 8)

The Police Force is The Watch - Dog of Democracy

I offer my warm congratulations to the recipients of the President's Police and Fire Services Medals and Police Medals. I am glad that the meritorious services of the officers and men of the Police Force receive this public recognition.

A TRYING PERIOD

We are passing through an important but crucial formative period of our history when foundation for democratic norms and future prosperity will be laid. This is a very trying period and unless everyone of us looks upon this period as a period of personal trial and makes his personal contribution irrespective of what others do, in accordance with the demands of the times, we cannot emerge successfully. I am laying stress on this aspect because when storms are rising, emotions are let loose and frustration takes grip, it is difficult to control temper and exercise restraint in dealing with crude exhibition of temporary impulses, but if this situation is not handled tactfully and firmly, it is likely to develop into a catastrophe. Friends in charge of law and order therefore have a very hard time to handle situations which erupt from time to time on account of either whipped-up compulsions or momentary impulses. **To the extent those who are in charge of law and order—especially the Police Force—are able to generate confidence in the masses that everything that they do is in the interests of the people themselves and the police force is not guided by either personal considerations or political, administrative and economic compulsions, they will be able to exercise sober influence.**

EXERCISE MINIMUM VIOLENCE

It is therefore said that that police force is the best which exercises minimum violence. This sentence is not intended to convey that if necessary no violence should be used but is intended to convey that the sobering influence exercised by the police is so important that occasions to use force rarely arise. Their presence psychologically creates an awareness in the minds of

even the worst of elements that in their presence they must behave and that their presence is intended to ensure the best of democratic traditions. **This can only happen if each one of us remembers that in a democracy each one of us has to exercise the restraint of a master and the obedience in a military force.** From this point of view, the police force in Tamil Nadu, by and large, except for a few incidents here and there, it must be admitted, is trying its best to rise to the healthy tradition of watch-dog of democracy.

The fact that at the recent All India Police Duty Meet at Cuttack, they won, for the fifth year in succession, the first prize in the Scientific Aids to Detection, shows how dedicated their work has been. It is not only intellectually that the Police force in Tamil Nadu has made a name but in other sports they have exhibited their skill and strength by winning 11 gold, 7 silver and 4 bronze medals and have won the championship. This is an all-India all-time record and I will be failing in my duty if I were not to congratulate the winners and wish the Police force more laurels in the future.

MODERNISATION OF POLICE FORCE

The State Government had done well in finding money to modernise the police force in Tamil Nadu. Introduction of computerization of crime records and provision of teleprinters in each district headquarters will go a long way in early detection of crime. The fact that an officer of the rank of Superintendent of Police designated as Assistant Inspector-General of Police II and Public Relations Officer is functioning shows their anxiety to develop public relations. The fact that they are running 31 Boys Clubs in the slums of urban area of the State of Tamil Nadu proves that the rigour of law is sought to be sobered by sympathy and understanding. It is this type of work which psychologically creates a feeling in the masses that the Police are their benefactors and are prepared to go out of their way to help the people.

It is unfortunate that the volume of property crime has gone up. That shows that the country's health is subjected to more pressures as a result of sporadic eruptions. I have no doubt that the Police force will exercise more vigilance and their usual sympathetic understanding exercises better influence.

I will be failing in my duty if I were not to mention two important investigations to the credit of the Tamil Nadu Crime Branch C.I.D. The organised gang which was responsible for a series of murders by posing as customs officers was not only unearthed but valuable property was recovered and every member was arrested. This danger has been nipped in the bud once for ever. Another high credit for the C.I.D. is the unearthing of the activities of the inter-State counterfeiters. It is more creditable because the arrest of the counterfeit gang took place before the counterfeit notes could be circulated.

(Governor's speech delivered on the occasion of Police Medal Parade on 14th December, 1973).

(Page 7 continuation)

21. He shall attend to registration of amendments to by-laws of village credit societies.

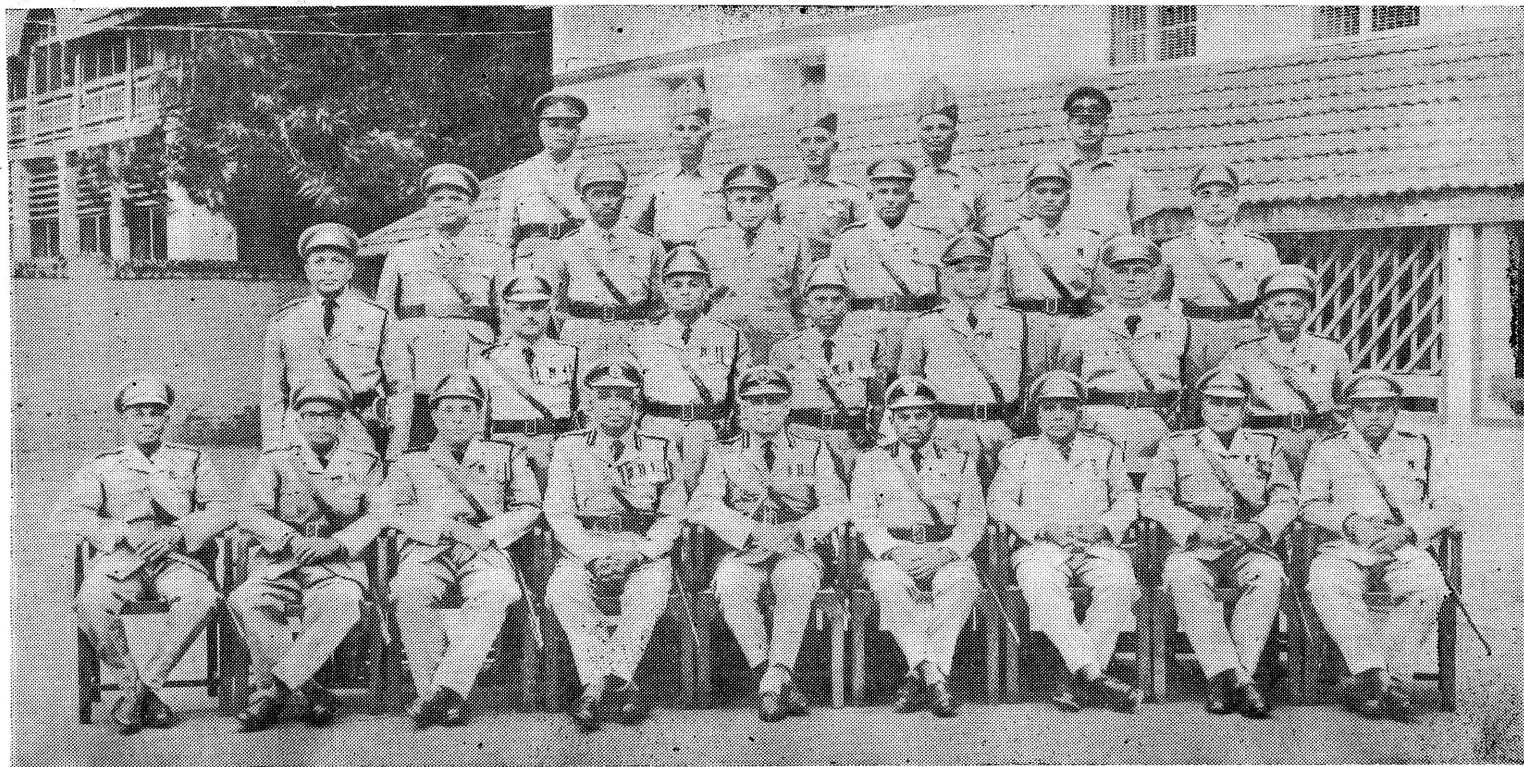
22. He shall conduct statutory and other enquiries in societies except those which are prima facie intended for investigation of frauds leading to prosecution.

23. He shall conduct enquiry into complaints against the Co-operative Societies in the Block.

24. He shall assist to the Societies in the collection of overdue.

25. He shall attend to submission of periodicals relating to co-operatives to various Officers and maintenance of registers connected with the periodicals.

26. He shall maintain a permanent register in the form prescribed, if any and record the details of achievements in regard to co-operation in the blocks.

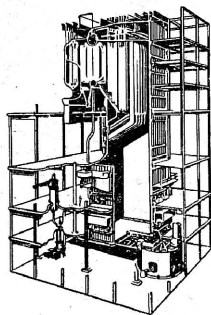


MEDAL PARADE 1973 RECIPIENT

Sitting : From left to right :— Thiru F.C. LANGTON, Dy Supdt. of Police, Excise,; Thiru. T. DORAIRAJ, D.S.P., C.I.D. Madras (Retired) S.B.,; Thiru. M.V. MOIDUNNI, Dy Commandant on O D in Southern Railway as Assistant Security Officer ; Thiru. S.M. DIAZ, I.P.S. Inspector-General of Prisons ; Thiru F.V. ARUL, I.P. I.G. of Police ; Thiru A. MURUGESAN Supdt. of Police, Special Branch II C.I.D. ; Thiru. A.K. RAMANATHAN, Divisional Fire Officer (Retd.) ; Thiru. G. DURAIRAJAN D.S.P. Vigilance and Anti Corruption ; Thiru. R. RAJASINGH Dy Supdt. of Police.

Standing 1st Row : From left to right :— Thiru D. CHRISTANDOSS Dy Supdt. of Police and Assistant Commissioner of Police, Traffic ; Thiru. K.K. NAIR, Dy. Supdt. of Police P.R.S. Vellore ; Thiru. V. RAMDOSS Dy. Supdt. of police, and Assistant Commissioner of Police, A.R. Madras city ; Thiru. S. MOTH A Dy. Supdt. of Police, Tamil Nadu A Special Police, Ist Branch Tiruchi ; Thiru M. NARAYANAN, Inspector of Police ; Thiru. A. VENKATARAMA SUBBIAH Inspector of Police Vigilance and Anti corruption.

Standing 2nd Row : From left to right :— Thiru. K.G. GOPALAKRISHNAN, S.I. OF Police ; Thiru. A.R. RASHEED, Station Fire Officer ; Thiru. S. SUDALAIMUTHU, S.I. of Police ; Thiru. S.S. PAPPUSEMAR H.C. 1107 M.C.P. ; Thiru P. GOVINDARAJAN, H.C. 790, Chingleput District ; Thiru G.R. KUPPUSINGH S.I. OF Police, Food Cell C.I.D. ; Thiru. M. DURASAMI P.C. 712 Ramnad ; Thiru. K.M. CHOKKALINGAM, P.C. 382, Thanjavur District ; Thiru. R. VIJAYARANGAM, P.C. 654, South Arcot (Retd.) ; Thiru M. RANGANATHAN, H.C. 2094, Salem.



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A DECADE OF SERVICE FOR THE PHYSICALLY HANDICAPPED

Of late, the rehabilitation of physically handicapped and mentally retarded has gained importance, thanks to the concerted efforts of a few voluntary agencies and dedicated men in medical service. They have succeeded, to some extent, in kindling human interest in the welfare of this section and spotlighting the inherent potential of the handicapped for resurgence in life. Dr M. Natarajan is one of them who has opened new areas of employment for the physically handicapped.

Dr. M. Natarajan, Orthopaedic Surgeon and Principal of Medical College, is the Founder-Director of the Artificial Limb Centre, Madras, the first of its kind in India which has made inventions in limb-fitting and this Centre has broken new grounds in social and economic rehabilitation. Credit for diversifying the work of this Centre and shifting the emphasis on rehabilitation of the handicapped as a constituent of society goes to Dr. M. Natarajan whose deft hands heal not only patients of bone-diseases in India but also Asia.

It is estimated that over one lakh of physically handicapped persons of both sexes are in Tamil Nadu which include children suffering from poliomyelitis, cerebral palsy or congenital deformities. The road and industrial accidents, not infrequent and unconnected with a fast developing industrial society, also increase the victims of physical handicaps. Till 1963 when the Madras Artificial Limb Centre was set up, the amputees from the South had to go to Poona for fitting limbs and braces. The civilians had to wait for a long period, exceeding over two years, in the register and stay for two months at Poona as the Poona Centre is mainly meant for the Army personal. Poor and children could not afford for, a patient will have to spend nearly Rs. 1,500/- to get the limb, whether it is artificial leg or mechanical hand. As a result, many physically handicapped patiently submitted themselves to the agony of handicap and remained as burden on their families. Their handicap, they thought, was divine wretch and could not regain the "paradise lost." To retrieve them

from such mental decadence was set up the Madras Artificial Limb Centre. A boon to the common man, this Centre was God-send.

The Artificial Limb Centre, Madras, is well-planned and scientifically organised. The workshop of the Centre fabricates the components, using the indigenous raw materials like the Kashmir Willow Wood and Kerala Red Cedar and Polyester Resin, adopting the latest techniques. The Bio-Engineer of the Centre is assisted by trained craftsmen and technicians, three of them being physically handicapped. The workshop, accommodated in two rooms, has units engaged in various processes making appliances and spares as well as carrying out research in designing and developing pieces and foot and leg forms suited to Indian style like squatting and moving in kitchen without boot. The "Madras Foot" for artificial limb is designed by this Centre and it is more flexible, mobile, showing and helps the patient to squat resting on the buttocks and the external appearance is pleasing as if the amputee has regained the near-natural physical powers. The "Walking School" attached with the Centre trains the patient in the use of braces, foot-pieces, etc., and helps walk as freely as possible. The service of this school under a social worker is really appreciable.

V. PARANJOTHI M.A. D.J.,
*Scrutiny Officer,
Information and Public Relations
Department.*

The Centre has so far fitted up 3,000 limbs. At present every month 28 amputees, on an average, are being fitted up with limbs and discharged. All patients from all sections of the society in the State and all over India come to the Centre for limb fitting.

The Artificial Limb Centre studies in detail the history of each amputee, including socio-economic aspect, emotional behaviour suitability for fitting the limb as well as the employment potential. The Orthopaedic Surgeon, Medical Officer and Medical Social Worker make out respective case study reports for final examination of the

Director. If found fit for limb or orthopaedic appliances, the prescription is given and further work is done by the concerned unit. The process of limb-fitting is so scientifically arranged and follow-up is carefully done.

The Director of the Centre is happy that the Government of Tamil Nadu have subsidised the cost of limbs fitted to the poor and over Rs. 45,000/- are spent normally by the Government in this respect. The railways also issue passes for the patients and their attendants from and to the Centre.

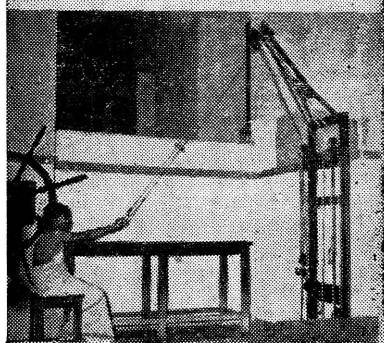
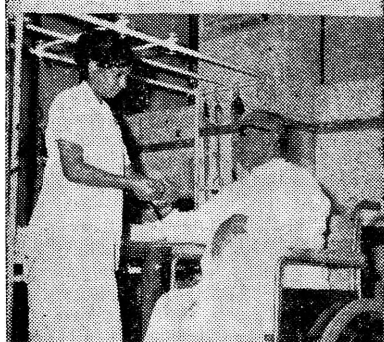
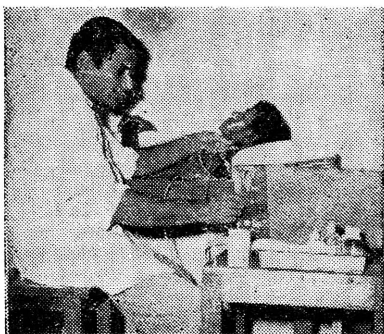
A unique feature of Madras Artificial Limb Centre is that a large number of amputees are replaced in gainful employment and many have gone back to their original jobs.

The Centre itself acts as Employment Bureau for the Handicapped. The Vocational Rehabilitation Division is staffed with well-trained personnel including the Vocational Counsellor, Statiscian and Evaluator and Social Workers. The employment potential of the handicapped is fully investigated, and the aptitude, social background, temperament and skill of the persons are studied to depth before a live-register is prepared by vocational rehabilitation division. The employment sources in industry, trade and government are tapped for placing the physically handicapped persons. To the surprise of many offers of employment reach them from the personnel department of private industry. This new venture of the Centre has the creditable record of service, and if the Central Governments and also the trade public come forward, to the extent possible, to support the vocational rehabilitation of the disabled, the handicapped may rest assured of social security and see the rays of hope to eke out their livelihood through sweat and strain.

The response, however, is not encouraging since society still holds the view that the physically handicapped is not a viable human unit of production. A new approach to this problem of placing the handicapped in remunerative work is to be undertaken carefully, and the Madras Artificial Limb Centre has embarked upon a new experimnt called "Self-employment."

PHYSICAL MEDICINE AND REHABILITATION

FOR THE PHYSICALLY HANDICAPED



Top:— Electro—Myographic study to find out the condition of muscle and nerves.

Middle:— Finger exercise to improve hand functioning.

Bottom:— Mennels apparatus to improve the movement of shoulder joint.

Physical Medicine is relatively a young and a new speciality in the field of Medicine. This is also now known as the 3rd phase medicine the preventive medicine, curative medicines being 1st and 2nd phases.

The usefulness of this speciality was realised during the 2nd World War. During this war the injured persons were treated in the Physical Medicine Centres and they were put back in the field much earlier than what happened during the First War. Further these centres rehabilitated severely injured persons, such as injury to the back bone and spinal cord resulting in the loss of power in lower limbs or in all four limbs and helped them to lead a useful life as a productive member of the society. These severely injured persons were neglected and lead a miserable life till death prior to the establishment of the Physical Medicine Centres.

These Centres originally existed only as Physiotherapy Centres where there were only paramedical personnel trained in physiotherapy.

Later the need for the leadership of doctors specialised in this speciality of Physical Medicine has been realised as the diagnosis and evaluation of various diseases and disabilities have become essential. So these centres have been converted into Physical Medicine Centres and these centres now function under the doctors specialised in Physical Medicine.

These centres now assume the responsibility of evaluation and treatment of various diseases. This speciality treats the various diseases of the locomotor system. For example:—

(1) In children—

(a) Anterior poliomyelitis otherwise known as infantile paralysis. This disease mainly involves children. This is caused by minute organism known as virus. This affects the spinal cord that is the main pathway of the nervous system and results in the loss of power in the limbs. This is a preventable disease.

But once it affects, it cripples the children very badly. These children after the treatment in the Physical Medicine Centres largely improve the power.

(b) Cerebral Palsy.—This is due to birth defect. This affects the brain and results in the loss of power in the limbs and sometimes speech and intelligency are affected. Such of these children are rehabilitated in these Centres.

(2) In young adults—

(a) Amputees,

(b) Paraplegics mainly after injury to the back bone and the spinal cord.

(c) Fractures—After the immediate treatment of fractures these centres help to build up the muscle power and improve the mobility of the joints so that the people will be up and about in a short living.

Prof. M. NATARAJAN,
Principal,
Madras Medical
College.

(3) Middle age—

Arthritis.—The arthritis is a progressive and crippling disease. The cause for the arthritis is not known. All the rheumatic diseases that involve the joints and sometime the patient's with back ache, shoulder stiffness are all treated in these centres.

(4) Old age groups—

(a) Stroke:—The stroke to the patient's lose the power of one side of the limbs. These patients have to be rehabilitated.

Apart from these various other diseases including the nervous and the brain and also some of the chest complaint in old age group or in asthmatic patients all require treatment in these Centres.

The Physical Medicine Centres have 2 important sections.

1. Electrodiagnosis and evaluation and
2. Treatment.

1. *Electrodiagnosis*:—Electro-Miography is a recent tool to diagnose the various paralytic conditions as Electrocardiogram, Electro Encephalogram is in the diagnose of heart condition and brain condition respectively.

Evaluation of the various disabilities is very important in presenting treatment and follow up or progress.

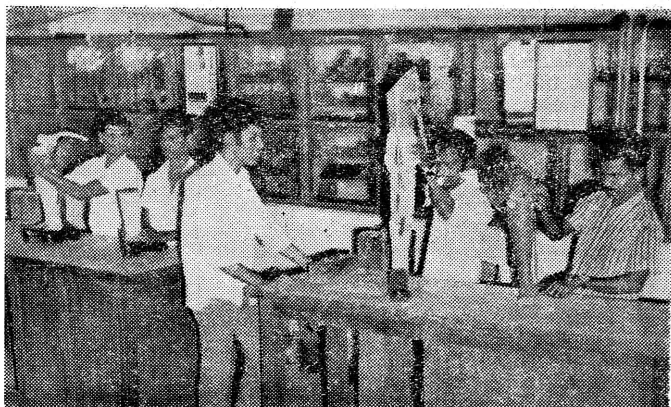
The treatment followed in these Centres are :

1. Internal energy
2. External energy.

The internal energy will improve the strength and bulk in various muscles and bring about mobility in the joints. This is achieved by various types of exercises, massage and manipulation.

The external energy is obtained from :

- (a) Heat
- (b) Electricity
- (c) Ultrasounds
- (d) Water
- (e) Ultraviolet Rays

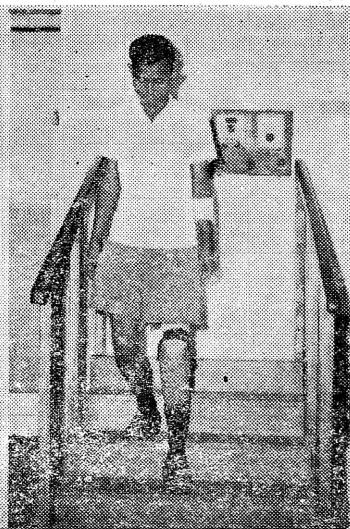
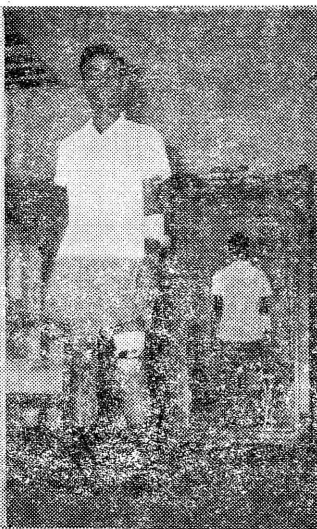
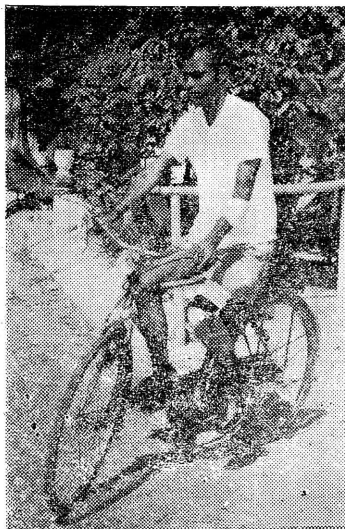


The photo shows
above : Fabrication Prosthesis

Centre: (Left) Stump exercise
(Right) Wax bath

Below :

(Left) An amputee riding bicycle
(Middle) Walking on the even floor
(Right) Climbing up and down steps



The various treatment followed in these Centres are not new. The massage is after all is instinct. The uses of electricity and ultraviolet Rays and exercise are all known to us even three thousand years ago. But now these treatments are scientifically followed after a correct evaluation of the disabilities.

Hydrotherapy :—

It is under water exercise. Hence the power of buoyancy of water is used for various exercises after proper evaluation. The doctor is guiding the therapist to chart out the exercise programme. This is useful to improve power in paralysed muscles as in anterior polyomyelitis and cerebral paralysis and improve joint movement in Rheumatism.

In the process of rehabilitation various other modalities are also

utilised. The important one is occupational Therapy where certain jobs are prescribed in the treatment and improve the muscle power. Further it becomes essential in certain cases to fit with appliances or prostheses to promote the ambulation. So a separate limb Fitting Centre is an essential link to these Physical Medicine Centres.

An artificial limb Centre which fabricates all types of artificial limbs and orthopaedic appliances, fit them on patients and train them in their use, is a part of this department. There is a specialist Dr. K. Janardhanam who is the limb fitting surgeon of the Centre and looks after the medical and physiotherapy parts while the engineering part is looked after by a bioengineer, Mr. A. Balakrishnan.

There is also a social vocational services section under a trained vocational counsellor, Mr. S.T. Marandeyan, which imparts social and vocational assistance to the disabled patients. Thus a complete team of rehabilitation exists in the department to impart a programme of "total rehabilitation" to the patients.

There is a full fledged Physical Medicine Department in the Government General Hospital, Madras. Dr. I. S. Shanmugam, Specialist, is the head of this department. There is also another Centre namely Andhra Mahila Sabha at Adyar.

The usefulness of this therapy is reorganised by the Government and there is a programme with the Government to open Physiotherapy and brace Centres in various Districts and Taluk Headquarters Hospital.

A PIONEER INSTITUTION FOR

MENTALLY

HANDI—

CAPPED

IN

MADURAI

The institution for the mentally handicapped children at Madurai is one of the pioneering ventures in the history of social service organisation of this country. This institution was started only recently to take care of the mentally handicapped children and for their education, training in simple carpentry, tailoring, gardening, poultry keeping, diary farming, etc. and for the ultimate rehabilitation of these unfortunate young ones. The services rendered by the institution is so noble and note-worthy in that it aims to shape these young people to become useful citizens of the country.

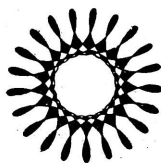
The strength of the institution at present is 16 of which five students are non-residents. The Collector of Madurai District, Thiru R.A. Seetharam Das—the patron of this institution known as 'Anba-

gam'—has granted land to put up permanent building and Rs. 8,000 through donations from village panchayats.

This institution managed by a committee of active workers is being supported by the liberal contributions and grants from the Government. The institution has a permanent building of its own and the dedication of the building was made by His Excellency, the Governor of Tamilnadu on 11.12.73.

The students of this institution are engaged in playing carrom and most of the time they spend in listening music. They are also entertained by conducting periodical film-shows by the Field Publicity Department.

Field Publicity Officer Madurai.



THE TAMILNADU CO-OPERATIVE HOUSING SOCIETY LIMITED. NO. X-406. MADRAS-7.

“ Venkataswamy Vagheesam Nilayam,

No. 14, Ritherdon Road, Vepery, MADRAS - 600007.

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Post Box No. 486

Telephone No. 30800

President :

THIRU PALANIVEL RAJAN, B.S., B.L., M.L.A.,

Vice-President :

THIRU P. KASTHURI PILLAI¹

Treasurer :

THIRU S. PALANISWAMY, M. A.,

—oOo—

Authorised Share Capital	—	Rs. 2.5 crores
Paid up Share Capital	—	Rs. 2,09,07,300
Loan outstanding against Primary House Mortgage Societies and Building Societies	}	Rs. 12,40,07,729

Long term Loans for Construction of new houses, additions and improvements etc., repayable in twenty years are granted to individuals through the Primary House Mortgage Societies and the various types of Building Societies in Tamil Nadu for the following purposes.

MAXIMUM INDIVIDUAL LOAN

- | | | |
|---|---|------------|
| 1. Construction of new houses | — | Rs. 25,000 |
| 2. Improvements, additions and alterations to the existing houses | } | Rs. 10,000 |
| 3. For minor repairs | — | Rs. 1,000 |

P. K. PATHMANATHAN, B.A., H.D.C.,

Joint Registrar and Secretary.

Kidwai and Nehru awards for the

Scientists of Tamil Nadu

Dr. V. Santhanam, Project Coordinator (cotton) and head of the Regional Station of the Indian Agricultural Research Institute, Coimbatore is one of the 10 agricultural scientists and Research Workers who received the Rafi Ahmed Kidwai Memorial Awards on 15th December 1973 at New Delhi.

The Rafi Ahmed Kidwai Memorial Award was instituted by the Indian Council of Agricultural Research to encourage the Agricultural Scientists and Research workers for their outstanding work and contribution in the field of agricultural research. The award carry a cash prize of Rs. 10,000 each.

Dr. P. Vidhyasakaran, Assistant Professor of Plant Pathology, Tamil Nadu Agricultural University, Coimbatore and Dr. P. Richard Masillamony, Lecturer in Virology, Madras Veterinary College are among the four post-graduate students in Agricultural and animal husbandry who received the Jawaharlal Nehru Awards for the year 1972.

The Jawaharlal Nehru Award was instituted by the Indian Council of Agricultural Research in 1969 to provide incentive to post-graduate students to carry out research of a high order. The value of the award is Rs. 5,000 in cash and a medal each.

The Rafi Ahmed Kidwai Memorial Prize for the biennium 1966-67 has been awarded to Dr. V. Santhanam, jointly with Thiru R. Krishnamourthy, for his significant contributions in Plant Breeding with special reference to cotton.

Dr. Santhanam, who is an outstanding cotton breeder of the country, is now the Project Co-ordinator of the All-India Co-ordinated Cotton Improvement Project. He was instrumental in introducing the concept of a plant type and quick maturity in the cotton breeding programme for off-season cotton cultivation in rice fallows and also distributed early-generation hybrid material to several Research Centres in the country. One of his significant contributions is the development of extra-long-staple Egyptian type of cotton suitable for import substitution which has long defied acclimatization under Indian conditions. Varieties like "Sujata" and "Suvin," which have come out of the work at the Regional Research Station, Coimbatore, are the first cottons evolved in India which can spin 100's and thus offer good scope for halting the import of the extra-long cotton into the country. Dr. Santhanam in addition to his original scientific contribution has provided able leadership for the development and release of several new long staple varieties of cotton which have since taken the country towards self-reliance in cotton production.

Dr. Santhanam is the author of more than 100 publications, which include a booklet on breeding procedures for cotton.

The Jawaharlal Nehru Award was given to Dr. P. Vidhyasekaran for his significant contribution in the field of physiology of disease resistance. He studied the physiology of two ragi varieties, one highly susceptible and the other moderately resistant to the fungi.

Helminthosporium nodulosum and *H. tetramera*, with a view to gain an insight into the mechanism of disease resistance. A detailed analysis of chemical constituents of healthy and diseased leaves, at diffe-

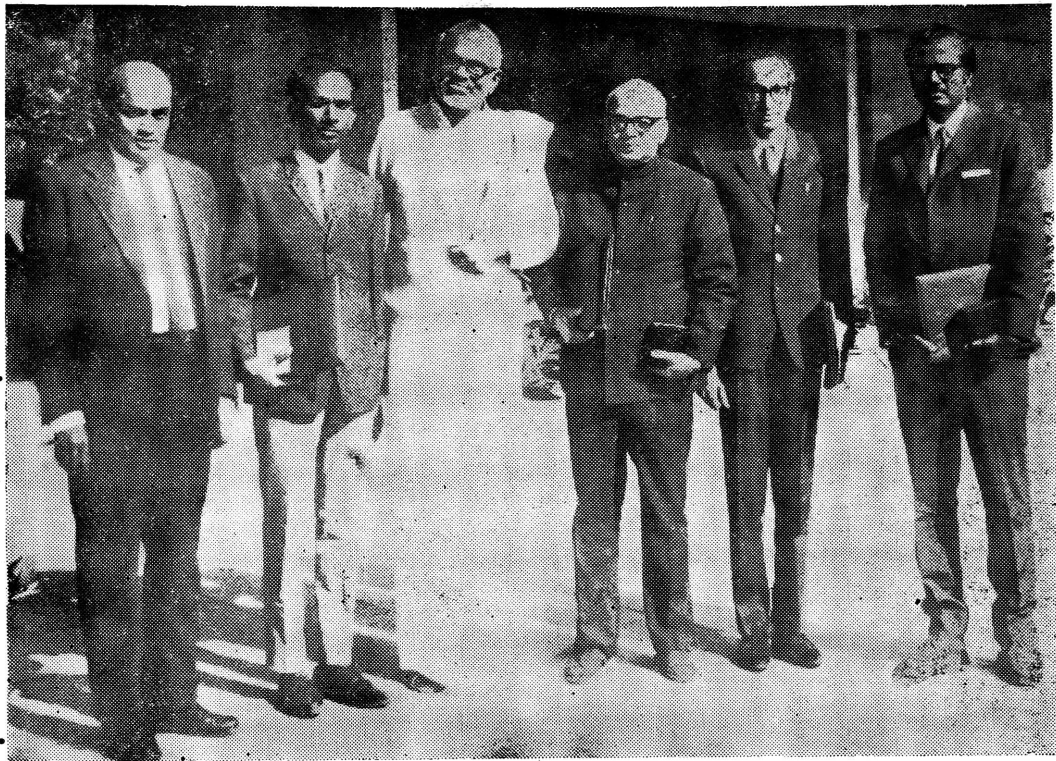
rent stages of growth of the plants and at different levels of disease incidence, revealed differences in respect of several constituents and physiological activities. A sharp increase in respiration was observed in the resistant as compared to the susceptible variety when they were infected. There were differences also in the amounts of particular amino acids and enzymatic activities. Their interactions were studied and their relationship to diseased and healthy conditions of the varieties were brought out by him. Total sugar content of the leaves was found to have relationship with disease resistance, the resistant variety having a high sugar content. Spraying glucose sugar, significantly increased sugar content of the leaves and this was reflected in a decrease in disease intensity, thus confirming the relationship between the disease and sugar content of leaf.

The status of the varieties in respect of mineral contents, such as sodium, calcium, magnesium, sulphur, iron and copper was examined and their relationship to susceptibility or resistance to the disease was brought out by Dr. P. Vidhyasekaran.

His research work has contributed useful knowledge on the nature and mechanism of resistance to *Helminthosporium* in ragi.

The Jawaharlal Nehru Award for outstanding post-graduate research in Agricultural Sciences for the year 1972 was awarded to Dr. P. Richard Masillamony for his significant contributions in the field of veterinary microbiology.

For his Ph. D. degree research work, Dr. Masillamony studied reo-virus infections in bonnet monkeys (*Macaca radiata*) to advance knowledge of the pathological potential of these viruses for man and animals. In cell-culture studies with reo-virus type 3, he showed by application of fluorescent antibody techniques, that the virus was actually contained in the inclusion bodies and that the virus particles contain both double and single stranded ribonucleic acid



The Award Recipients with the Agriculture Minister and the Vice-Chancellor of the Agricultural University.
 Left to right Standing:— Dr. Rangasamy V. C. Dr. P. Vidyasekar Recipient of Nehru Award, Tamil Nadu.
 Minister for Agriculture: Thiru S. P. Adithanar, Dr. Santhanam and Dr. Krishnamoorthy, Recipients of Kidwai memorial Awards and P. Richard Masillamony, Recipient of Jawaharlal Nehru Award.

which, as reported by other works, is a characteristic of reo-virus types 1 and 2. Dr. Masillamony conducted fundamental studies on the isolation of virus after oral-nasal inoculation to find out pathogenicity and rate of elimination. He gathered valuable information on these aspects and found that as early as 3 days post-inoculation the earliest in the autopsy series, titratable virus was found in tonsils, trachea, lungs and in the small bowel, mesenteric lymph nodes, and liver. While the post-inoculation virus was obtained from spleen and kidneys it could not be recovered from pancreas, heart, cerebrum or cerebellum. Observations indicated that histologic changes were not prominent in tissues other than the gut wall. Monkeys were found to develop homotypic haemagglutination inhi-

biting humoral antibody in high titres that were maintained virtually unchanged for at least another 5 weeks. The haemagglutination inhibiting reo-virus antibody patterns were studied which were found to resemble those for Influenza A and Dengue antibody patterns.

The research carried out by Dr. P. Richard Masillamony has contributed richly toward elucidating the characteristics of reo-virus in causing pathological changes in human and animal infections. The research was conducted at the Department of Microbiology, Christian Medical College, Vellore under the guidance of Dr. Ruth M. Myers, formerly Professor of Microbiology, Christian Medical College, Vellore.

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AN APPEAL TO THE SCIENTIST.

The Agricultural Minister Thiru S.P. Aditanar, urged the scientists to evolve a paddy strain which could be harvested in 90 or 95 days, instead of the present duration of 105 days of kuruvai paddy. If this was evolved the agriculturists of Thanjavur could raise two crops to the full extent of about 13 lakhs acres. At present they raised two crops in about 4 lakh acres only. If this was made possible, Thanjavur district could become a "rice-bowl" for the entire country, the Minister Said.

Thiru. Aditanar offered a cash award of Rs. 10,000 to any scientist who evolves a quick-growing variety of tree capable of producing 40 to 45 tonnes of fire wood per acre per year.

Thiru S.P. Aditanar, said if such a tree was developed it would be possible to run the thermal stations in the State without depending on coal from North India and tackle the problem of power shortage." ☼

A MODEL PANCHAYAT WITHOUT AGRICULTURAL INCOME.

Thirunagar is a peculiar village panchayat on the outskirts of Madurai City in Tamil Nadu. It has no agricultural lands like other Panchayats and its annual revenue is about Rs. 62,000 from various sources.

There are 620 houses in this Panchayat and nearly 40 percent of its 4,200 population are those retired from service and settled down in this village which is known for its calm atmosphere and healthy climate. Six hours a day protected water supply to the residents, a net work of forty feet roads connecting the eight main streets, and lighting up the roads and maintaining a beautiful park including a 5.5 acre play ground are some of its commitments.

This Village Panchayat has ten educational institutions—five of them are nursery English medium schools, one high elementary school, and two high schools for boys and girls—in addition to this, there is a Secondary Grade Teachers' Training School and a Co-operative Training School.

The Seethalakshmi Trust spends several thousands of rupees a year on the residents of the Thirunagar Panchayat who benefit through the girls high school run by the trust and the maternity home.

The maternity home was started in February, 1973 and since that day 200 children have been born in this home and about 75 tubectomy operations have been conducted by its Family Planning Wing during the year 1973. The trust spends Rs. 25,000 a year on the maintenance of this maternity home which is run on charities.

There is a Consumer Co-operative Society functioning in this Panchayat with all the 420 householders members.

The Panchayat is served adequately by the nationalised Pandyan Roadways Corporation city buses.

All said, Thirunagar Panchayat made its mark in other fields too—it contributed Rs. 51,000 the maximum contributed by any single Panchayat in Tamil Nadu, towards the National Defence Fund. It is a wealthy Panchayat too, having invested about 3 lakhs in the Centre and State Government Loans. And with all its commitments by virtue of its claim as a model Panchayat, the cash balance in its coffers is Rs. 3 lakhs.

BIGGEST STONE BUILT TANK IN TAMIL NADU

At Madurai in Tamil Nadu, famous float festival is held every year at Mariamman Tank. This tank which is 1,000 ft. long and 950 ft. wide is said to be the biggest stone built tank in the South.

King Thirumalai Nayak who ruled Madurai in the 17th century initiated this float festival as a part of his birthday celebration. The float is a colourful festival when the idols of Goddess Meenakshi and Lord Sundereswarar are placed in the decorated float and drawn inside the tank by devotees. At night the float and also the tank bund are beautifully lit with oil lamps and coloured lights. Thousands of people gather at the Mariamman Tank during the festival and while paying homage to the reigning deities the people also remember king who gave this city a beautiful temple. It attracts thousands of tourists a day from abroad and inland.

*Field Publicity Officer,
Madurai.*

SUCCESS STORY OF ANIMAL HUSBANDRY DEVELOPMENT UNDER M.F.A.L. DEVELOPMENT AGENCY SCHEME IN SALEM DISTRICT

The Marginal Farmers and Agricultural Labourers Development Agency operating in Valappady and Peddanaickanpalayam Block Development areas of Salem district has extended creditable service in the Animal Husbandary which has pro-

duced a very good impact in that area. The details are :

(a) **Landless Labourers** : Upto 30—6—1973, 1,263 units of Ewes ; 701 Units of Stud Rams and 546 Units of Poultry have been supplied to the landless labourers against the loan of Rs. 1,99,049.

(b) **Sub-Marginal Farmers** : 1,483 units of milch animals and 157 units of Poultry have been supplied to sub-marginal farmers against the loan of Rs. 12,61,125.

(c) **Marginal Farmer** : For Marginal Farmers, 1,141 units of milch animals and 106 units of Poultry have been supplied against the loan of Rs. 11,04,179.

The entire scheme of Animal Husbandary for the supply of milch animals and poultry have been modified and put into operation recently with the addition of sheep breeding for Sub-Marginal and Marginal Farmers. As per the revised schemes, Rs. 3,800 will be extended as loan to each beneficiary for the purchase of 2 milch and one heifer, Rs. 2,400 will be given for poultry for the establishment of a Poultry Unit consisting of 100 birds and Rs. 2,150 for the purchase of 40 ewes and one ram.

Establishment of a Milk Chilling Unit and opening of Milk Collection Centre.—A sum of Rs. 1,46,250 was extended to the Salem Co-operative Central Bank as a long term loan for the purchase of a chilling plant for storing milk collected and for a van for the collection and transport of milk from the project areas. This agency had paid 1/3 of the loan amount as subsidy. 20 milking centres have been established in the project area and nearly 1,500 litres of milk are being daily collected through the lorry provided, stored and sent to various places like Madras, Erode, etc.

*Field Publicity Officer,
Govt. of India, Salem.*

EXPERIMENTS ON SCHOENITE— AN INDIGENOUS POTASH FERTILISER

The potash salt extracted from the brine is called schoenite of potash, and its chemical formula is $\cdot K_2SO_4 \cdot MgSO_4 \cdot 6H_2O$. At present a private company in Tuticorin is producing schoenite of potash from salt bitterns on the basis of a process developed by the Central Salt and Marine Chemicals Research Institute, Bhavanagar. According to the National Research Development Corporation of New Delhi schoenite of potash contains 22-24 percent of potassium, 10-12 per cent of magnesium, 48-50 per cent of sulphur and less than 2.5 per cent of chlorides. It contains not only potassium but also other micro-nutrients such as magnesium and sulphur.

A. Pot culture studies :

Groundnut requires large amount of potash, which is now being supplied as Muriate of Potash. Schoenite being an indigenous potash fertiliser was tested along with Muriate of Potash on groundnut. The initial trials were conducted in pots for three years (1967-69). The results indicated that Schoenite had the same effect on the yield of Groundnut as Muriate of Potash. Analysis of the soil samples at the end of three years of trial were also carried out for different soil characters like soil reaction, salinity, available nutrients, exchangeable cations and sulphate. The results indicated no accumulation of salt, or appreciable changes in soil PH by the use of Schoenite. Similar was the case in respect of available nutrients. There was a tendency for the exchangeable calcium to increase with no adverse accumulation of sulphate in the Schoenite treated plots.

B. Field Experiments :

Field experiments were conducted between 1970-'72 with three levels of K_2O as Muriate of Potash and as Schoenite. The experiment

was conducted in the same field during the three years and the random allocation of different treatments remained the same, to study the continued effect of application of Schoenite. Reproduced below is the yield obtained for the two types of K carriers at the present departmental recommendation of K_2O (i.e. 51 kg/ha) for summer crop.

Yield of Groundnut pods (in Kg/ha) Years

	1970	1971	1972	Mean yield
(a) Muriate of Potash	2010	1572	2696	2093
(b) Schoenite	2072	1695	2715	2161

The results confirmed the previous finding that schoenite is as good as Muriate of Potash as source of K_2O in Groundnut nutrition. No marked difference in the soil chemical characteristics could be observed even after three years of continuous application of schoenite.

Other effects of schoenite on Groundnut :

There are indications that the incidence of tikka is minimised in the Schoenite applied plots, perhaps due to the effect of Magnesium.

RESULTS OF DISTRICT TRIALS

Sl. No.	Block	District	Variety	Yield obtained Kg/ha as Muriate of Potash	As Schoenite	Difference Plus or Minus compared to M. P.	%
1.	2.	3.	4.	5.	6.	7.	8.
1	Vridhachalam.	South Arcot	TMV. 7	296	472	Plus 176	59
1	Tirupathur	North Arcot	"	710	745	Plus 35	5
3	Salempatti	Salem.	"	708	792	Plus 84	12
4	T.V. Malai	North Arcot.	"	560	620	Plus 60	11
5	Cuddalore.	South Arcot.	POL. 1	660	900	Plus 240	36
6	Tindivanam	South Arcot	TMV. 10	312	376	Plus 64	20
7	Chengam.	North Arcot	TMV. 7	568	596	Plus 28	5
8	Arakonam.	North Arcot	"	440	480	Plus 40	9
9	Barguar.	Dharmapuri.	"	448	520	Plus 72	16
10	Kancheepuram	Chingleput.	TMV. 2	340	316	Minus 24	7
11		Salem.	TMV. 2	520	590	Plus 70	13
12		North Arcot	TMV. 9	300	360	Plus 60	20
13	Vellore.	North Arcot	TMV. 7	604	632	Plus 28	5
				6466	7399		
Mean ::				497	569	Plus 72	14%

C. District Trials :

With a view to test the findings of the Research Station in the farmer's holdings spread over different locations, observation plots were laid out in 1972. There were thirteen centres in the districts of South Arcot, North Arcot, Salem, Dharmapuri and Chingleput. Schoenite was compared with Muriate of Potash at the same rate of K20 per acre. The results are given in the previous page.

The results obtained clearly indicated that Schoenite application to Groundnut has resulted in increased yields

Effect of continuous application of Schoenite.

Doubts have been expressed that continuous application of Schoenite which contains 8% of Magnesium, will result in Magnesium accumulation in the soil to a toxic level.

The studies at Regional Agricultural Research Station, Tindivanam, have indicated that in plots applied with Schoenite, there has been decline in the exchangeable Mg. content instead of an increase as expected. Further that application of Magnesium at the rate as contained in Schoenite even for several years reach the toxic level is only theoretical possibility.

SALIENT FEATURES OF SCHOENITE

1. It is an indigenous potassic fertiliser.

2. For Groundnut which is a huge potash feeder Schoenite is a good substitute for Muriate of Potash—an imported fertiliser.

3. Schoenite can replace Muriate of Potash thereby saving valuable foreign exchange.

4. Schoenite also supplies sulphur which is an essential element for Oilseed crop.

5. The presence of Magnesium in schoenite will be an additional advantage in minimising tikka disease incidence.

*Additional Director of
Agriculture,
Tiruchirappalli.*

THE BEST

HIGH SCHOOL

IN TAMIL NADU

T. V. S. High School, Madurai in Tamil Nadu has been adjudged as the best High School for the year 1970 in the State by Bharathy Academy. T. V. Sundaram Iyengar Educational Institutions, co-educational in character, are situated on a beautiful campus right in the centre of the posh T.V.S. Colony, just 5 Kms. south of the temple of divine mother Goddess Meenakshi.

WELL-EQUIPPED MUSEUM

An excellent and well equipped museum maintained by the T.V.S. Primary School, the T.V.S. High School and the T.V.S. Lakshmi Higher Secondary School is the pride of the campus. A collection of rare specimens of birds, mammals, reptiles and other typical fauna of South India such as the cunning fox and the timid wild cat and freaks of nature of an unique variety like the twin headed chick. That is the T.V.S. School museum at one glance. The Headmaster of this High School Thiru S. Ramasamy is the recipient of State Award for 1970 as the Best Teacher.

The aim of the school is to train and equip the young for a "full life and enlightened citizenship." With a view to achieving this lofty aim, instruction is "child and activity centred through provision of varied opportunities to drawn out the best in each student."

The day begins with an impressive prayer-meet. A Kural is explained daily and the next day it is recited by selected pupils. A noble and worthy thought of some eminent person is introduced every Monday and the pupils are required to expatiate it in the coming days of the week. A planned programme of moral instruction is followed with success. For slow learners and for those who lack proper study facilities at home, free supervised study

classes are proving a great boon. Special emphasis is laid on attention to co-curricular activities.

The schools are well equipped with fine buildings with up-to-date amenities, well-furnished laboratories, a good library with 9,000 volumes, housed in a separate spacious block with facilities for reading, an extensive play field with an 800 metre cinder track, the only one of its kind in South India, audio visual aids and provision for the study of arts and crafts.

SAVINGS SCHEME

This school is the pioneer in this part of the country in implementing the unique scheme known as "The Lakshmi Students Small Savings Scheme"—a scheme which has become very popular now-a-days, thanks to the appreciation extended to the scheme by the State Government. Regular pass-books are issued to this school children and there are at present more than 2,000 accounts covering fixed deposits worth Rs. 23,000/- besides a cash account of Rs. 25,000/- in Savings Bank.

PRACTICE IN ROAD SAFETY RULES

It is only in the fitness of things that this T.V.S. House, the pioneers in road transport in Tamil Nadu, nay, India, thought of putting a Children's Traffic Training Park, similar to the Shell's Park at Madras, very near our schools, at a cost of nearly two lakh rupees. The park helps to train in road sense, not only our school children but also the pupils of other schools in the city.

"A good education is a sound investment for the nation and it is a factor of production."

Field Publicity Officer, Madurai.

A NEW VARIETY OF

PADDY FOR TAMIL NADU

Tamil Nadu stands foremost in the matter of average yield of rice per acre in India and this is due to the coverage of a large area under improved methods of farming. Intensive cultivation of high yielding varieties was started in the year 1965, when the Chinese variety 'Taichung Native-1' was introduced in India. It was during the same year, the popular variety 'ADT.27' developed by the rice breeders of Tamil Nadu was released for large scale cultivation. 'IR.8', 'IR.5', 'IR. 20', 'IR. 22' and 'IR. 24', are subsequently introduced in India from Philippines. Among them 'IR. 8' is considered to be the best in yield. Utilising 'IR.8' and 'Taichung Native. 1' as donor parents, Paddy Breeding Station, Coimbatore came out successful in developing three high yielding strains namely 'Co. 33', 'Co. 34' and 'Co. 35' which were released for cultivation in Tamil Nadu under the popular names 'Karuna', 'Kanchi' and 'Cauvery', respectively. Among the other varieties introduced, and tried, 'Ponni', 'Jaya', 'Padma', 'Kannagi' and 'Triveni' are popular among farmers.

Research on the development of newer varieties of Paddy to suit the different agro-climatic zones of Tamil Nadu, is being pursued intensively at the Tamil Nadu Agricultural University. Variety 'Bhavani' was released by this University as a Pongal gift last year. This variety comes up well through out the year and is very much liked by farmers because of its high yielding ability even at lower level of fertilizers. The next release during the year was strain 'Co. 36', which is also a strain of high yield potential but this comes up well only when grown in the samba season.

The new variety 'Vaigai' (Co. 37) that is now released is also a strain developed at Paddy Breeding Station, Coimbatore from a cross between 'Taichung Native. 1' and 'Co. 29'. It is similar to strain

'Kanchi' in duration and it comes to maturity in 115-120 days after sowing. The plants are semi-dwarf in habit and grow to a height of 90 cms. or three feet. At low and medium level of fertilizers it yields 15 to 19% more than 'Kanchi'. It is more resistant to blast, blight and green leaf hopper and it yields about 2.25 tonnes per acre. Its rice is slightly finer than 'Kanchi'.

"Vaigai" is recommended for cultivation in the districts of Coimbatore, Salem, Madurai, South Arcot, North Arcot and Ramanathapuram and can be grown in Kar, Swarnavari, early Samba and Navarai seasons. It can be cultivated in the Vaigai river project areas and being insensitive to photoperiod it can be grown throughout the year.

'Vaigai' paddy has performed well in several other States in India and is found to possess wide adaptability making it fit for cultivation under varying seasonal and climatic conditions. Hence, there is good scope for this variety to spread in Tamil Nadu.

It is estimated that 'Vaigai' can be cultivated in about 3.5 lakhs of acres in Tamil Nadu and this will result in an additional production of about one lakh tons of food grains every year. By cultivating Vaigai, farmers get a net profit of 250 to 300 rupees per acre over Kanchi, without incurring any additional expenditure.

Source :

Dept of Agrl. Botany, Tamil Nadu Agricultural University, Coimbatore, 641003.

—oOo—

TEACHER

IS

A

PROGRESSIVE

FARMER

Kallampatty is a village in Madurai District of Tamil Nadu. Village Population is 1,700 and 400 children are studying in the Higher Elementary School. Cent per cent of the population are actively engaged in agriculture. There is one Credit Society with 410 as its members and the annual turnover Rs. 2.5 lakhs. There is no arrears in the year end from the members and are very prompt in payment. To the credit of the village a milk union is successfully functioning with 200 members.

Thiru M. Arjunan, B.A., B.T., is a teacher belonging to this Kallampatty village. He is a young man of 36 years who has 5 children and accepted family planning. He is a progressive farmer also. He has 3 acres of wet lands in this village. He sets an example to others in the field of agriculture. As an educated man from the village he adopts modern techniques in this field. Out of his school time he directly engages himself in the operation of agricultural field activities with his better half too. He has cultivated I.R. 8 in his field and the recent yield was 3,500 Kgs. per acre. This is set to be highest in Melur Panchayat Union area. According to this he saves Rs. 1,500 net per acre and he has so far invested more than Rs. 10,000 in various savings schemes of Government. He closely follows the advices of Agricultural Department.

Field Publicity Officer Madurai.

—oOo—

MULTI-PURPOSE USES OF

SAFFLOWER

Safflower is a minor oil seed crop of India, but it occupies 75% of the world acreage. For centuries its culture was confined to regions of India, where the flowers were used as a source of dye for clothing and food. Synthetic dyes have now largely replaced it, and it is grown mainly for the production of oil. The utility of the crop is multifold as a vegetable and edible oil for home, as a drying oil and dye for trade, as a feed to poultry and cattle, as a manure to soil, as a forage crop to work animal and as a natural fence against trespass.

Edible oil :—Safflower seed contains 30% oil. The oil is normally very pale yellow in colour which after bleaching may become light in colour. The colour is probably associated with carotenes or other pigments in the oils. Carotene content has been reported as 12.8 mgm. per litre which is considered high for the seed oils examined. The edible uses of safflower oil are well known in those areas where the crop is indigenous.

The use of safflower oil in more sophisticated societies is recent. It is now commonly found in many food products, including cooking oil, margarine, salad dressing, frozen desserts and speciality breads. Filled milk, imitation creams, imitation eggs and similar products are also produced with this oil.

The oil is becoming more popular as an edible oil in many countries, since it has a high degree of unsaturated fatty acids. From medical research reports, it is seen that the high linoleic acid present in safflower oil, has some therapeutic value in preventing arteriosclerosis, a circulatory system disease. It is also responsible in reducing the cholesterol content of the blood serum. The oil can be used for adulterating ghee and sesame oil and in the preparation of "Macassar" hair oil. The so called "sweet oil" of Bombay is obtained by crushing a mixture of groundnut, sesame and safflower seeds. Charred safflower oil is used in the treatment of sores and rheumatism, and the seeds are considered to be diuretic and a tonic.

Industrial uses :—The oil is a drying oil, intermediate between soyabean and linseed oils in total unsaturation. The industrial uses were mainly in the field of protective coatings, for which its unique high linoleic acid content enables the oil to form fast drying non yellowing films, with low wrinkling and resistance to dew damage characteristics. Its excellent colour and heat bleaching characteristics enable safflower oil to be used where ever light coloured and products are desired. Exterior house paints based on safflower oil remain essentially white, compared to colour, changes in linseed oil paints which shows a marked increase in yellowing when in shadow. Varnishes and ready mixed paints manufactured in India containing modified safflower oil were superior to those formulated with linseed oil.

R. KULANDAIVELU, M.SC. (AG.)

&

V. S. SHANMUGASUNDARAM M.SC.
(AG.), Tamil Nadu Agricultural
University, Coimbatore-3.

From safflower oil an Indian product called 'Roghan' is prepared which is used for preservation of leather and the production of waterproof cloth. 'Roghan' is a gelatinous material and is obtained by heating the oil for two hours to approximately 300 degree centigrade and then pouring the hot oil into cold water. This is used as glass cement and as a fixing material for ornamental stones and tiles.

Meal and Flour :—Safflower meal from undecorticated seed is a useful animal feed for cattle and sheep, but is less suitable for poultry and pigs owing to its low energy content. Partially decorticated meal is suitable for ruminants and with lysine and methionine fortification for poultry also. The flour obtained by basic removal of oil and hull is light coloured, bitter and has considerable potential as a

human food supplement in protein deficient diets. It has been suggested that the hulls, which are usually of little value could be used in the production of furfural, abrasives, or for insulation and fillers.

Dye :—'Carthamin' the red dye extracted from its floral parts is used for colouring silk and wollen fabrics. By suitable treatments carthamin can be made to produce a variety of red colours, the most common ranging from cherry to red. It is now used to colour cosmetics, food including confectionation, artificial flower and liqueurs. In Gloucestershire such large quantities of the flowers were used to colour sausages and cheese that it has considerable purgative effect. In India the florets are added to rice, bread and pickles to give them an attractive colour. Saffron rice is served on ceremonial occasions and in making offerings to Gods. It was said by Arabs that the florets have a diaphoretic properties and was used by them to promote sweating to cure fever. The tubular florets are commonly used as an adulterant for true saffron or as a less costly substitute.

Forage :—Safflower is considered as a green fodder or silage crop for drier regions where other fodder crops would produce, but small amounts of feed. Grazing can be commenced when the crop is established in about eight weeks after sowing. Yield of 4,500 kg. of green material have been obtained in India where it is relished by cattle especially in the young stages.

Green Vegetables :—The young leaves are eaten as a vegetable side dish with curry or rice. In India and Burma the leaves and thinnings of the less spiny varieties are used as a vegetable. A brew made from the foliage is said to prevent abortion and barren condition dreaded by Indian women.

Released by :

Communication Centre,
Tamil Nadu Agricultural
University,
Coimbatore-3.

MUSHROOM CULTIVATION

For farmers who are familiar with the cultivation of crops, the very idea that mushrooms also can be cultivated, may appear revolutionary and exciting. Many people, especially in villages would have tasted a variety of delicious mushrooms collected from fields and forests during rainy season. A few mushrooms can be cultivated in the farm to get supply all round the year. This will also augment farm income and the raw materials for the cultivation are available in any farm.

Mushrooms are fleshy plants belonging to the fungi group. They live in decaying organic matter. The absence of green colouring matter called chlorophyll distinguishes fungi from higher plants. Mushrooms are the commonest and most conspicuous of all fungi. In fact, Mycology referring to the science of the study of fungi was derived from the Greek word *mykes* meaning mushrooms. Ancient Greeks and Romans considered these as food of the Gods. Mushroom refers to the conspicuous umbrella shaped fruiting body emerging from an extensive underground net work of root-like structures called mycelium. In forests this underground mycelium may live in a place for many years and produce mushrooms year after year. The common varieties have short thick stem and umbrella-like fleshy cap. On the under surface of the cap are many thin sheets of flesh which radiate from the stem towards the margin of the cap. The seeds called spores are produced on these sheets, blown away by wind and grow into new mushrooms. An average sized mushroom may produce about 200 crores of seeds of about 1/2,500 of an inch in diameter.

While many of the mushrooms growing wild are edible, some are highly poisonous and are sometimes called toadstools. There is no completely safe way of distinguishing between edible and poisonous mushroom by an ordinary man. Only a specialist can do it. Some of the

superstitions to distinguish poisonous mushrooms by blackening of silver spoon and onions are not correct. It is said that one can make the mistake of taking a poisonous mushroom as edible only once! Some of the wild edible mushrooms are morels, horsemushroom, puff balls, honey agaric, oyster mushroom, etc. The royal agaric or Caesar's amanita was the favourite of the Roman emperor Nero. These edible mushrooms vary in size. Some puff balls may grow to a diameter of even 4 feet. While many are white, some are brightly and attractively coloured. In the Himalayas *Morchella* species grow wild in plenty in forests and apple orchards and are collected by villagers, dried and sold to get good income. In Uttar Pradesh, wild truffles are eaten. One of the deadliest mushrooms is Destroying

R. JEYARAMAN,

Head of the Dept. of

PLANT PATHOLOGY,

Tamil Nadu Agricultural University,
Coimbatore.

Angel. Another mushroom *Amanita muscaria* is poisonous only when eaten in large amounts and is chewed by natives in Siberia to produce hallucinations. The French were the first to grow mushrooms 300 years ago. At present mushroom cultivation is a flourishing industry in U.K. and the U.S.A. where the annual productions are 40 and 60 million pounds respectively. The two mushrooms grown all over the world are the temperate mushroom (*Volvariella* species). The former is cultivated on compost made from wheat straw in cool places having a temperature of 16 to 18 degree centigrade and requires good skill and much capital investment. But the paddy straw mushroom is simple to grow in the plains of Tamil Nadu and does not require much capital

investment. It grows well at 30 to 37 degree centigrade. But it does not grow well when the minimum temperature drops below 24 degree centigrade. The method of growing this mushrooms has been standardised at the Plant Pathology Department, Agricultural Colleges and Research Institute, Tamil Nadu Agricultural University, Coimbatore and is described here. The spawn of the fungus which serves the purpose of seed material is produced in the laboratory and supplied to the interested growers.

The bed is prepared in a protected shady place preferably under a roof—A platform of bricks or wooden planks about 1 ft. high, 3 ft. square is prepared. For one bed about 40 kg. of good, stiff paddy straw is necessary. It is tied into small bundles 3.5 to 4 ft. long and 10 inches diameter weighing 1 kg. and soaked in a tank of water for 12-16 hours. Eight bundles are placed in two layers in the same direction. The spawn is divided into bits of 1" and placed 4" apart all around the bed 1" form the edge. A spoonful of red gram powder is sprinkled over each spawn piece. Another 8 bundles of paddy straw is placed over this layer, perpendicular to the first layer and the spawn applied as before. A third layer is then placed and spawn applied. Then the bed is covered with a layer of straw bundles, pressed firmly by hand and watered with a rose can. Two bottles of spawn are required for one bed. The bed is covered with white transparent polythene sheet and watered daily just to keep it moist but not sudden. The mushrooms appear in 10-13 days and continue for 4 to 5 days. A second crop may appear after a week. After that the beds should be removed. A bed may yield 2 to 3 kg. of mushrooms.

The mushroom contains about 90% water, 3% protein, 5% carbohydrates, small amount of fat and mineral salts. Both stem and cap are edible and so no part is wasted unlike many vegetables. This is too delicate to transport to distant markets.

ADDED INCENTIVES AND IMPETUS

A roof over head is an indispensable must for all and sundry irrespective of the climes or climates they are living in. But India presents a pathetic picture in as much as millions living in villages do not own houses. Even if some of them own houses, they are either far inadequate in terms of modern and hygienic facilities or vulnerable to hazards of fire or floods. The Government, which stands dedicated to 'Rural Uplift' on egalitarian and socialistic principles, desires to improve the living conditions of the villagers, extending facilities to build houses for them, both by the Government and by the people themselves. With this sound object in view the Village Housing Project was formulated and it lays greater stress on houses being built on 'self-help' basis i.e. the owner themselves availing loan facilities from the Government and adding to a small degree their own efforts and resources.

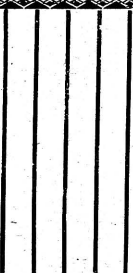
The Rural Housing Cell, inaugurated in the year 1958, has been functioning continuously for the last 15 years. Although the grant of loan has been on very liberal terms, the scheme had not been adequately availed by the public. It can be seen from the figures given below that the physical achievement and financial outlay had not been substantial. Over a period of 14 years i.e. till March, 1973, only 3704 houses have been completed availing loan amounting to more than Rs. 120 lakhs as detailed below.

Year	Amount spent in lakhs	No. of Houses Constructed
1960	2.50	—
1961	8.53	131
1962	7.27	555
1963	9.71	536
1964	9.56	521
1965	5.59	235
1966	4.14	75
1967	5.35	58
1968	8.10	214
1969	13.29	200
1970	6.24	218
1971	9.03	240
1972	13.56	309
1973	20.22	412
1974	72.00	1800
(Annual)		
1975	100.00	2500

PROVIDED TO THE ACCELERATED PROGRESS IN VILLAGE HOUSING PROJECT.



The need and necessity for the enlargement and effective implementation of the Village Housing Project is enormous. In this article the details of the scheme are given in a comprehensive manner.



Conscious of the enormous need for housing in villages and of the inadequacy of the plan allocation, the Chief Minister sanctioned Rs. 50 lakhs from the Welfare Fund with a programme to construct 1,200 houses. The plan allocation for the year 73-74 was also increased to Rs. 27 lakhs and further revised to Rs. 46 lakhs. Thus, very nearly a crore of rupees has been allocated to further the programme of Rural Housing Programme to complete 1800 houses in 73-74. The allocation for the next five year plan is also quite promising. Already a sum of Rs. 100 lakhs has been indicated for the year 1974-75 which is hoped to be substantially increased by widening the scope of Village Housing Project Scheme. It is hoped that about 2,500 houses will be completed in 1974-75.

The need of housing in rural areas is very large and there is a long way to go. So a vigorous impetus has been given to this problem in addition to providing various incentives such as liberal loan facilities, engineering specification in the shape of model types of houses etc. to the village folk so as to lure them to avail themselves of the benefits of the scheme in right proportion.

Liberal Loan Facility

This scheme is operated throughout Tamil Nadu excluding municipal areas. The farthest village from the town is the most welcome. The scheme does not discriminate any class or community. The conditions to be satisfied by those, who opt to avail loan, are very liberal and simple. Loan can be availed for new constructions and improvements. The Scheme is helpful when people are rendered houseless in times of flood and fire hazards.

The applicant should own a piece of land suitable for house construction with an extent of not less than 5 cents and in exceptional circumstances not less than 3 cents and free from encumbrance. The size of land (i.e. length and breadth) should be in such proportion as to accommodate a plan acceptable to

the department. The applicant should be capable of repaying the loan over a period of not more than 20 years either in monthly or annual instalments. The applicant shall raise the building upto plinth level and produce non-encumbrance certificate to become eligible to receive the first instalment of loan.

Mode of Payment of loan.

The maximum amount of loan is Rs. 4,000/- per individual. The rate of interest chargeable is 6 % which is the lowest, levied by the Government. The period of repayment is not more than twenty years. Any one desiring to opt for a shorter period of repayment can do so. Loan is disbursed in four instalments. The loanee is expected to plough in his/her resources to raise the building upto floor level which is not less than a foot above the proposed ground level around the house. At this stage the first instalment of Rs. 1,000/- is disbursed. Availing this amount the loanee may raise the building above floor level. When the construction reaches the level of window still, the second instalment of Rs. 1,000/- is disbursed. This enriches the loanee with sufficient and more, fund that he raises the construction to roof level in a few days. At this level the third instalment of Rs. 1,500 is disbursed enabling him to buy roof timber, tiles, etc. and engage labour for fixing them and plastering outside of walls. Then the fourth and final instalment of Rs. 5,000 is disbursed with which the loanee completes plastering inside flooring, white washing, colour washing, painting, etc.

Process for repayment of loan.

The loanee is expected to complete the building within a period of one year from the disbursement of first loan. The repayment will be scheduled to commence eighteen months after the disbursement of the first instalment or six months after the disbursement of the final instalment whichever falls earlier.

The loan is disbursed by the respective Union Commissioner. The

first instalment is disbursed only when the prospective loanee produces legal documents to establish ownership of land and also non-encumbrance certificate to establish that the site under reference is free from encumbrance. The loan shall be repaid in a period not exceeding twenty years, from the day scheduled for repayment. Repayment of loan is collected by the Tahsildar of the Revenue Department and accounted for.

Any loanee failing to abide by the conditions cited above, will be subjected to enforcement of penal action and summary recovery under 'Revenue Recovery Act'.

Technical Help.

Type designs are available with this Department. The loanees may avail them free of cost. Should they desire to have their own plans they may furnish them to the Section Officer, Rural Housing Cell of the area and get them approved. The plans should be got marked on ground only by the staff of the Rural Housing Department, and execution should follow plans strictly. Subsequent additions and alterations during the course of construction, shall be got approved by the Section Officer, Rural Housing Cell, prior to execution.

The foundation particulars regarding depth and width and nature of building materials to be utilised etc., will be advised by the staff of this department taking into account the site and local conditions. By and large, the loanees are advised to use minimum quantity of cement, restricting its use only to damp proof course and plastering of walls and floors and to eliminate use of steel, brick, etc. Rough stone, Mud mortar, Lime Mortar and Country Wood shall be liberally used.

The construction shall be undertaken by the loanees themselves. The Rural Housing Department

offers technical guidance free of cost. Model houses are being constructed by the Rural Housing Department and made available to people who are willing to buy them.

Procedure for Availing Loans:—

Any one who desires to avail loan under this scheme shall apply to the respective Panchayat Union Commissioner, who then verifies the correctness of the particulars furnished by the applicant, with the help of the village officers, and recommends the same, if satisfied, to the Divisional Engineer, Rural Housing Cell, Madras, making a copy to the respective District Collector. The Divisional Engineer, Rural Housing Cell, then accords Preliminary Approval authorising the applicant to go ahead with the construction. The applicant shall approach the Section Officer, Rural Housing Cell, and undertake construction. When the building is raised upto ground level, the Section Officer, Rural Housing Cell and for the Panchayat Union Commissioner will report to the Divisional Engineer, Rural Housing Cell, requesting sanction of loan. The Divisional Engineer shall then issue 'Proceedings' sanctioning loan authorising the Panchayat Union Commissioner to disburse the same. The Panchayat Union Commissioner receives certificates from Section Officer, Rural Housing Cell at different stages of works i.e., the first at floor level the second at window still level, the third at roof bottom level and the fourth when the roof has been fixed outfaces of walls plastered.

Recovery of loan is effected over a period of 20 years, charging an interest of 6 % only per annum. Recovery is commenced eighteen months after the date of payment of first instalment or six months after the date of final instalment which ever falls earlier.

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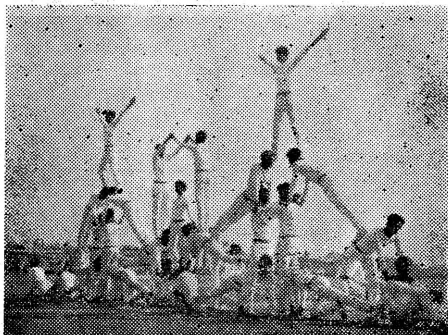
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SIXTH STATE LEVEL PONGAL SPORTS

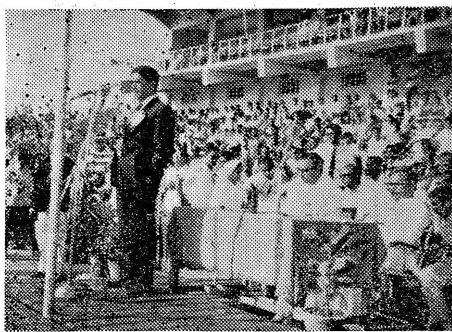
Sixth State Level Pongal Sports was held at Tiruchirappalli from 16—1—1974 to 18—1—74. The first three State Level Pongal Sports were conducted at Madras and the fourth and the fifth Pongal Sports were conducted at Madurai and Vellore respectively.

The venue for the Sixth State Level Pongal Sports was set at Tiruchi. There are 12 members in Tiruchi District Sports Council. The Collector Thiru M. Vaithialingam, I.A.S., is the President for the District Sports Council and Thiru B. Perumalsamy, Superintendent of Police, is the Vice-President. The Chief Educational Officer, Miss A. Meenakshi is the General Secretary for District Sports Council. It was decided to conduct the Annual Pongal Sports at Kajamalai Stadium.

The following sports and games were conducted during the Sixth State Level Pongal Sports—
1. Foot Ball, 2. Hockey, 3. Basket Ball, 4. Volley Ball, 5. Kabbadi, 6. Ball Badminton (Fives) and 7. Track and field events in 100 M., 400 M., 800 M., 1,500 M., 3,000 M., Bread Jump, High Jump, Shot Put (16 Lbs.), Jayelin Throw. All the Districts in Tamil Nadu had sent their team and nearly 1,000 persons participated in the festival.



A Drill item staged in the sports meet

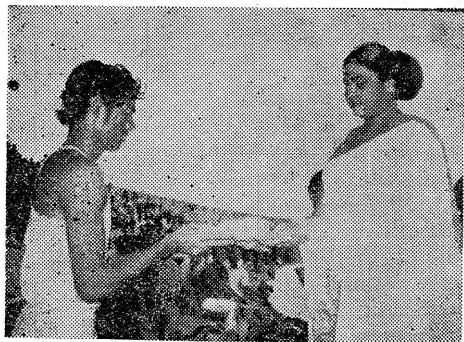


Collector of Tiruchirappalli delivering his welcome address.

The inaugural function was held at Kajamalai Stadium on 16—1—1974 in a grand manner. A grand route march was conducted by Lt. Col. DeZouza, Commandar, N.C.C. Group Headquarters, Tiruchirappalli. All sections of general public also participated. The march was enthusiastically conducted and it stimulated inner feelings of the Tiruchirappalli district people. The whole Tiruchirappalli town was decorated with welcome arches, festoons and flags, and it bore a festive look all along. The Hon'ble Minister for Education and Tourism, Dr. Nedunchezian inaugurated the function and the Hon'ble Minister for Local Administration, Thiru Anbil Dharmalingam presided over the function.

The Collector Thiru M. Vaithialingam, I.A.S., arranged the function in an attractive manner with the co-operation of almost all the Heads of Departments.

The Final Day celebration was also conducted on 18—1—1974 in a grand manner. Thiru M. Vaithialingam, I.A.S., presided over the function and Mrs. Pushpa Vaithialingam distributed the prizes to winners. Thiru M. S. Mani, Vice President, Khadi Board and Thiru M.S. Venkatachalam, Secretary, Spinning Mills delivered valuable speeches.



Mrs. Vaithialingam wife of Tiruchy Collector distributing prize for the winner.

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The Tamil Nadu

STATE SPORTS COUNCIL

The Tamil Nadu State Sports Council founded in the year 1957 is a Statutory Body charged with the task of promoting sports and games as also taking of steps to develop the sports skills of the youngsters, sportsmen and champions. It consists of 31 members of whom 17 are selected from the Moffusil at the rate of 1 from every district. Of the 17 members from the city, 9 are official members and 8 are non-officials nominated by the Government and they will hold office for 3 years. The Education Minister Dr. V. R. Nedunchezhiyan is the President of the Council.

Apart from this, every district has its own District Sports Council. In the districts the Collector is the President and the District Superintendent of Police is the Vice President respectively of the District Sports Councils. Regional Inspectors of Physical Education act as the General Secretary and Chief Educational Officer as the honorary treasurers of the District Sports Councils.

Finance :

Rs. 10 lakhs has been granted this year by the Tamil Nadu Government for the annual running expenditure of the State Sports Council. In addition, a sum of Rs. 63,000 has been sanctioned for Pongal sports. *Ad hoc* provisions are made by the Government for the construction of stadium in each district. Whenever the Sports Council comes out with a good plan for constructing a new stadium anywhere in the State the Government is always ready to sanction Rs. 1 lakh per stadium and the Government of India will also offer about Rs. 50,000 for the same. The balance has to be borne by the public or the rest has to be met by the Tamil Nadu State Sports Council. There has always been enough enthusiasm in all districts and thus almost all headquarter towns in our State have their own stadium, of them all built and declared open during the last five years. Special mention may be made of the Kancheepuram

AND

ITS

GENERAL

SET-UP

stadium for which fabulous sum was collected by the drive and enthusiasm of the then Collector, Thiru Seetharamadas. As an adjunct of the stadium a Public Hall was also constructed which will finance the maintenance of the stadium.

Now there are about 9 district stadia at the following Towns, viz., Tiruchi, Vellore, Nilgiris, Kanchi, Cuddalore, Salem, Coimbatore, Madurai and Nagercoil. As far as the City is concerned, the City Corporation has provided about 76 paygrounds, among them the Nehru Stadium at Park Town, Kannappara Thidal play ground at North Madras and Nungambakkam Recreation Centre are the biggest in the City. Pride of mention can be made of the Indoor Stadium at Egmore which is the venue of many All-India Competitions for in-door games.

Incentives :

In recent days, the Tamil Nadu State Sports Council has taken active interest in making as many good athletes as possible by giving cash-incentives to the youngsters. At the College level, the State Sports Council is granting Rs. 300 as scholarship every year to ten men students and women students per head. At the school level scholarships of Rs. 150 is granted per head per year to 10 High School boys and girls and also 3 Anglo Indian boys and girls. Apart from this 10 outstanding athletes of both men and women are also given a stipend of Rs. 300 per head every year. Besides stipends were also given to the sportsmen who volun-

tarily come forward to undergo training in the Nethaji Subash Training Institute (National Institute of Sports) at Patiala, sponsored by the Government of India.

All-India Rural Sports Meet :

The State Sports Council helps about 22 State level associations, controlling games and sports for the purpose of selecting outstanding champions, and sending them to participate in the national and zonal tournaments. The Council is providing money for staging of South Zone competitions and All-India level competitions. It sent round qualified coaches to the universities, Colleges, Schools and Clubs for giving advanced training and in finer techniques.

The council celebrates its 6th Pongal year last month by organising and conducting competitions in Football, Volley Ball, Kabaddi, Hockey, Badminton from the lowest level of local administration to the upper most State level. Starting from the 374 blocks, 90 municipalities, 8 townships and 2 Corporations the Sports Council extracts outstanding athletes in various fields. The selected candidates will have to compete with the 46 Educational Districts and 14 Revenue Districts and finally to confront with their State-level competers. Finally selected athletes will be sent to confront All India Rural Sports Tournament. The total expenditure estimated for this purpose of conducting sports at various levels ranges between Rs. 1.80 lakhs and Rs. 2.20 lakhs.

Distinction of Fishermen Boys :

The Council is equally interested in conducting swimming competition and sent 7 fishermen to confront the Rural Swimming Meet. Of the seven events conducted, the fishermen boys won 7 first prizes and 6 second prizes and 5 third prizes.

The Council also conducted the 8th All India Civil Services Athletic Meet between 31st January 1974 to 1st of February, 1974 at Madras.

The Council will be conducting the Vth All India Rural Sports Tournament at Salem between 15th and 16th February, 1974. It also helps the Department of Education at all levels for the conduct of Republic Day Tournaments.

The Council's enthusiasm provides thousands and thousands of youngmen and women to develop their skills and brighten their athletic prospects. The Council develops not only "Healthy Mind in a Healthy Body" but also tie up the international relations, on firm grounds, through the sports exchanges between nations such as U.S. and U.S.S.R.

Services of Coaches available to all Schools :

The services of coaches in the various games and sports are avail-

able with all the District Sports Councils and the State Sports Council at Madras. There are coaches in Athletics, Tennis, Table Tennis, Basketball, Hockey, Football and Cricket in the City of Madras itself. Physical Directors and the Physical Education Teachers of the Institutions could easily hand over talented players and athletes to such coaches for training him/her in finer points. Then only they will be able to concentrate their attention in improving the Physical Fitness of the larger student-body.

Not all the Institutions could get the services of the coaches during a specific period. Not all the Institutions have their own playgrounds also. The Corporation of Madras maintains 76 playgrounds all over the city and they have even appointed playground Instructors and playground Attenders to many

of these grounds. If some of the Institutions around such grounds could join to-gether, draw out a programme and requisition the services of the coaches to train the youngsters, after obtaining the necessary permission from the Corporation of Madras for the use of the grounds, it will be possible for the Council to allot coaches. This initiative on the part of the Institutions concerned will go a long way to improve the talents of the youngsters, provide enough work for the coaches and also put the Public playground to the optimum use.

The Institutions need not spend anything on the coaches. They need provide only the equipments required and place the services of the games peons at the disposal of the coaches (in turn) during the coaching classes.

S. S. *

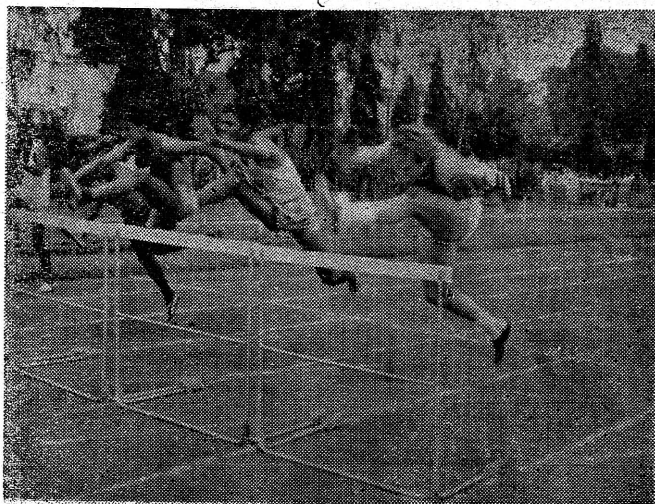
THE MADURANTAKAM CO-OP. SUGAR MILLS LTD.,

PADALAM P. O., CHINGLEPUT DISTRICT.

- (1) Series of failures we encountered
In developing cane for our survival ;
We surmounted all in a decade
With a solemn purpose of serving the Nation.
- (2) By fleet of lorries well organised,
We bring the cane fresh from the field.
We ensure supply of inputs,
And prompt in payment of cane price.
- (3) We enforce measures of Plant Protection
And conduct crop Competition.
We take our growers on Tour Education
And teach them to grow quality cane.
- (4) Every succour in hour of need
We extend to members who really need.
Working in the Co-operative Sugar, we greet
To consolidate the gain we already made.

TAMIL NADU AND SPORTS

The individual achievements of athletes have become points of national pride ; the number of prizes of a country can score at the Olympics is looked upon with the same wonder that is associated with achievements in fields like science and space technology. So



The photo shows hurdles competition between U.S. track team and Indian Athletes.

much so, it is no wonder that when India is looking for prizes in the Olympics the search has to be made for athletic talents and endurance at the grass-root level. For instance, the National Institute of Sports when it sends out its talent-scouts, these scouts look out for promising athletics from our more durable and more sturdy rural youth for 'building' them into national athletes ; recently a batch of fishermen boys of Nochikuppam near Santhome, Madras were sent all the way to Delhi and Patiala to exhibit their process in swimming. All this may sound like a repetition of the 'Cinderella Story' ; but this is what is happening all the time in our sports and athletic world.

In our State, under the regions of the Tamil Nadu Sports Council, stadia have come up in almost all District Headquarters. The leadership of the Collector is availed to enthuse local sports and also to collect funds for building these stadia. In addition rural sports are conducted at State level enabling rural youth to compete and win prizes. This has become an annual feature ; this year the State level meet was held at Tiruchi during Pongal week.

Apart from nurturing our Sports talents through Schools and Colleges, we have to throw our Sportsmen to the influence of eminent athletes of other nations. This is easiest done in International Competitions ; but only the pick of our talents can compete in these events.

To beat the process of other national sports stars against our own youth, we have what is called visiting teams in the sports field. Last year such teams visited Madras both from U.S. and the U.S.S.R.

A 15 member athletic team (11 athletes and four officials) from Soviet Kirghizia which arrived in Delhi on September, 24 under Indo-Soviet Cultural Exchange Programme came to Madras on October, 2. The team has its Master a number of Master of Sports (International Class).

The first Indo-Soviet Athletic 'Test' took place on September, 26 at the National Institute of Sports Patiala. The Second Test was held at Jullundar on September, 30 the third was held on October, 3 and 4 at Madras in the Rajarathinam Stadium and the final at Delhi on October, 5.

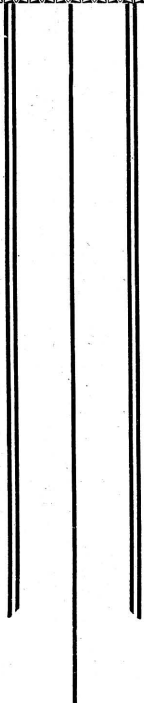
The visiting team was composed of six and five female athletes of whom the majority were short and long distance runners.

An American track and field team began a week long demonstration and training programme in Madras on November, 19.

The five-member team, accompanied by a coach was composed of champions handpicked by the United States Amateur Athletic Union (A.A.U.) America's ruling amateur athletic body. The team's tour was sponsored by the U.S. Department of State.

The photo shows Barry McClure of the U. S. track and field team won the triple jump event clearing 15'38 metres.

WHERE DO OUR ATHELETES STAND VIS-A-VIS WORLD STANDARD ?



Dr. Robson Moses, Principal of Alagappa College of Physical Education, Karaikudi explains in this article where Indian athletes stand in the field of games and sports vis-a-vis world standard.

Alagappa College of Physical Education in Alagappapuram, Karaikudi, is the scene of unusual activity. Principal Dr. Robson Moses is convinced that : "Physical education is the only subject which contributes to all the objectives of education : promotion of health and growth, social efficiency, economic efficiency, international understanding, cultural appreciation and recreational competency."

He recalls that the city of Eugene on the West Coast of America is known as the jogging capital of the world. There, young, old and entire families jog every day. For the people of Eugene this is not physical education but heart and lung exercise. It is simple and everyone can do it, says Dr. Robson.

Dr. Robson says, that "the average American is no full-time jock-strap-ping gymnast. There is nothing in the American it has that requires regular calisthenics. So, in tests requiring gymnastic ability, the American may score poorly. But ask him to swim, run, jump or bat a ball, he will be right with you. Americans like competitive sports".

Alagappapuram is grooming itself on the lines of Eugene, stressing the meaning and importance of physical fitness. In its campus, it has many centres of learning starting from the Montessori level to engineering and physical education, from a certificate course to one leading to a master's degree. The land, the buildings and facilities perpetuate the memory of one of India's outstanding philanthropists and educationists, Dr. Alagappa Chettiar.

Yogic exercise positions or asanas is part of the physical education programme in Indian colleges. It is held in the second term during the monsoon season as it can be taught indoors. The main advantage of yoga is to improve flexibility, to discipline the mind and to develop vital capacity.

American universities are offering yoga as one of the service course programmes in physical education. "What I observed in the U.S. was very useful for my dissertation," says Dr. Robson. He was the first Indian to receive a doctorate from Oregon University.

Dr. Robson regrets that physical education and sports and games have a low priority in India. For a population of about 550 million we have only 55 physical education colleges and institutes in India. Ten of them are situated in Southern India catering to a population of 134 million. We have only one physical education teacher to about 1,000 students and even more.

He noted that the approach in the U.S. is entirely different. They have no category of physical education teachers as such. Some of the classroom teachers are qualified physical education teachers. Some of them work as coaches for which they are paid extra allowance. They have a separate budget for physical education and a separate budget for competitive programmes.

ROBSON'S APPRECIATION ABOUT INDIAN SYSTEM

Dr. Robson admits that India has taken the best of the American system in the professional preparation of physical education teachers in India. The pioneering efforts of the Y.M.C.A. College of Physical Education and people like Dr. Henry Grey and Mr. M.C. Buck have left an indelible mark in India's progress in this regard.

Dr. Robson feels that a solid foundation for physical education should be laid at the elementary school and all teachers there should have some training in physical education and the value of sports and games. In the Punjab, he notes, they have introduced sports as a subject in schools offering scholarships to those attaining certain standards.

Those students who show progress can be grouped and imparted more intensive and scientific training. He wants to see sports activities organised from the village level, then to district and State levels. "Through such competition", Dr. Robson says, "an attempt can be made to start schools exclusively for sportsmen for national championships and international competition."

Dr. Robson wants building of hospitals, medical colleges and clinics to be matched by building of playgrounds, parks and recreational centres which are the lungs for the community. Such facilities should be well administered and properly used. He says, "A healthy nation is an asset, a sick nation is a liability."

SYSTEMS OF PHYSICAL EDUCATION

Since the time of the ancient Greeks, we have felt that there was a close relationship between a strong vital mind and physical fitness.

—JOHN F. KENNEDY

The history of physical education from very early times right down to the present is a thrilling story of enthusiastic and conscientious effort on the part of many noble pioneers, but is also a story of many colossal blunders. Perhaps the greatest mistake of all has been the failure to regard man as a whole, the mistake of dealing with him purely as a physical being, the failure to realize the necessity for a psychological approach, the mistake of putting the person into a programme of standardized activities instead of providing activities according to the characteristics and interests of those who were to participate in them. Such mistakes have led to a narrow conception of physical education, to rigidly formalized and standardized artificial exercises and SYSTEMS OF PHYSICAL TRAINING for mere body building and posture training. Such mistakes have delayed for too long the development of a desirable broad conception of education of the whole-man by means of comprehensive programmes of meaningful physical activities catering to and influencing man physically, mentally, morally, and socially. Much valuable time and effort have been wasted in quarrelling over systems, activities, and exercises. A willingness to subject all activities and programmes to the acid tests of sound principles, a willingness to select activities according to the nature, interests, and needs of participants, might have enabled our earlier pioneers of physical education to have made greater progress in a shorter span of time. In India, too, progress has been retarded by the same narrow conception that physical education is built only on anatomical and physiological principles, and by the failure to realize the necessity for building on psychological and sociological principles also. Illiterate drill masters, mass drill subjective activities, and lack of status for physical education are some of the landmarks of a narrow conception.

Various systems of Physical Education.

Artificial System such as the German System, the Danish System, the Swedish System, etc., have held and still hold the centre of the stage for many promoters of physical education. All such systems have their good points, but they are not sufficiently comprehensive to cater to all the interests and needs of boys and girls, of men and women. They fail utterly to shape men to be good citizens of any social order. standardized system can be sufficiently comprehensive to do this, for while it may contain and practice some of the truths that are conducive to good living, it cannot possibly contain all the truths. Therein lies the folly of slavishly following a particular system or of being bound to any special set of exercises. The futility of depending solely upon a

H. C. BUCK M. A., M. P. E.,

*Former Adviser to Government
of Madras or Physical Education.*

system is that all systems are built upon the assumption that man is merely a physical being, a thing to be exercised, ordered and regimented. Systems leave out of account of fundamental truth that man is also endowed with emotions, with desires for self-expression, with a personality, with interests which need to be understood and satisfied. The Physical Education over the merits or demerits of Yogic Asanas, or of Suryanamaskars, or of the various Dundahls and Bhaskie, or as to whether Indigenous Activities and Indigenous Games should be introduced to the exclusion of all foreign activities. But such procedure will be no more helpful today in developing a new world order than has been the unfruitful quarrelling over systems and exercises down through the long periods in the earlier development of modern physical education. We will, on the other hand, have to be broad-mind-

ed, and calmly attempt to determine the place and the value of activities for the programme in the light of scientific and educational principles, and not by their place of origin or traditional usage. Activities must merit and justify a place in the programme by all the tests of all the principles, in the full realization of our ambition for a new order which is certain to call for extraordinary men and women. We must then come to the point of considering some of the things which need to be done by physical education to fit men and women for a reformed social order.

We need to dedicate our lives unreservedly to service for and with the boys and girls who are going to be the men and women of the new order. In spite of many obstacles, in spite of poor salary scales, in spite of the poor status given to physical education, we have greater opportunities for influencing lives that come to most other people. We should cherish this opportunity. We should also be frightened by it. The responsibility is great. We come into contact with boys in all their primitive desires expressed most fully through physical activities. We may help youth to control those primitive desires and to direct them constructively into right channels, thus building good character. Or we may make the grave mistake of actually aiding and abetting the boy in his displays of lack of control of the fundamental urges, thus using physical activities, as a means of destroying character. The physical education teacher who ever-lastingly insists on his or her pupils observing the spirit of the rules has this idea of character building through play. The teacher who withdraws his pupils from a match because they are losing or because the referee's decisions were not according to their liking is not helping boys to control primitive urges and is destroying rather than building character. The new world orders must be one that respects and obey rules. There is no more satisfying work in this world than that of help-

ing boys and girls to discover the high values of self-discipline. Any sacrifices that as physical education teachers make in this effort are worth remarking.

Educational Institutions must willingly and conscientiously give greater opportunity for physical education to succeed, and to physical education teachers more scope for doing effective work.

When we look back twenty-four years to the then barren programmes of drill and gymnastics under the leadership of illiterate drill masters, and compare that with the improved type of activity and the higher quality of leadership in evidence today we have no reason to feel that the situation is utterly hopeless. At the same time, we have not many reasons for congratulating ourselves, for the goal has not yet been reached. Much remains to be accomplished. Public opinion must be educated and stimulated in favour of scientifically correct and educationally sound physical education directed by highly educated and specially trained leadership. Parents and teachers must be brought to appreciate physical education for its real values. Headmasters and Principals must give to physical education the same status as to general education and physical education teachers must be given the time, the place, and equipments and the status that will enable them to educate and to shape lives by means of well selected and adequately conducted physical education activities.

We have seen progress in some directions, and that is commendable. The Government of Madras and the Department of Education deserve the highest praise for the requirements introduced regarding the qualifications of physical education teachers, the number of teacher per pupil population, the types of periods to be conducted, the conducting of tests in fundamental skills and games, the keeping of registers and records, and for the improved requirements in physical education for girls and women. But we cannot and should not depend upon legislation alone for progress. We must continue to shape opinion and eventually bring educational institutions to give physical education its rightful place, not because of legislation, but because of their implicit faith in its values.

The world is only beginning to that the wealth of a nation consists more than anything else in the number of superior men that it harbours.

—WILLIAM JAMES

The sad part of the story is that in spite of requirements in various aspects, inspite of considerable faith, in spite of some noticeable progress, the time-tables for physical education in far too many institutions are no better to-day than they were twenty-five years ago. The traditional practice of postponing all physical activities until the end of the day usually results in mass drill or mass play as a bad substitute for physical education, creates a bad attitude towards physical education, makes it impossible for physical education teachers to work with small groups, makes good coaching impossible, makes it impossible to develop skills or improve ethics, and does not provide sufficient real work for the physical education teacher. This practice cannot be honoured with the name of physical education. If we accept the belief that physical education has a very real part to play in determining a new and better world order the whole school day will be so re-organized that pupils will report for physical activities classes in small groups in a sufficient relay of periods to permit of actual teaching, to enable teachers to provide suitable and adequate experiences for all pupils, so that the outcomes from physical education may truly be considered as on a par with those from the other educational experiences. Our aim must be to provide daily physical education periods for all pupils, in each period not more than 30 to 40 pupils per teacher, a sufficient number of qualified teachers to permit of many such small divisions, ample play areas, and adequate equipment.

I venture to express the opinion that the present faulty organization and lack of time tables for physical education will not enable this branch of education to make any contribution of great value to the new world order. The very best programmes of physical activities that could be devised and the most capable physical educators in the world are doomed to failure if pupils are not permitted to participate in groups small enough to enable teaching to

be done, and if they cannot participate sufficiently often to reap the benefits which come only by repeated experiences

In promoting and in conducting competitions we must put forward every effort to maintain and improve the spirit of play.

Due to improved organization for competition, to improved leadership, and to improved refereeing we see much less bad spirit displayed in competitions to-day than was apparent twenty-five years ago. But we are not yet perfect. Still there are incidents of which we must be ashamed. During this very year of 1941, I have been flooded with letters from people, who, finding it difficult to accept defeat gracefully, hoped to be able to obtain statements which might support their protests against referees and their claims for re-play of matches. It is apparent that there is much room for improvement in attitudes, much yet to be learned about the real purpose of games, much to be taught about the spirit of the game and about the correct meaning and application of the term sportsmanship. When some teachers and promoters of competitions still have that peculiar attitude of mind which places the emphasis on winning rather than on the spirit of play, which makes it difficult for them to accept defeat without blaming the referee and others, we cannot expect sportsmanlike attitudes from players and spectators. Unfortunate incidents in major as well as in minor tournaments might be avoided if more leaders realized the colossal harm that is done to the characters of players in permitting wrong attitudes to prevail. One thing is certain, attitudes, desirable or undesirable, are bound to be developed. It should be our business as physical educators, therefore, to see to it that the attitudes developed as the result of our efforts may be desirable ones. If we permit or encourage protests against referees, and rebellion against rules and authority, we are most certainly helping to develop undesirable attitudes of disorderliness, lack of discipline, lack of self-control; attitudes of revolt and rebellion. To develop the desirable attitude of respect for rules, respect for authority, the attitude of orderliness and self-control we must inculcate in our pupils the awareness that the most important thing in play is not whether one

wins or loses, but **HOW** one plays the games? A desirable world order will have little place for those who demand that all decisions must be made in their favour.

I am of the opinion that we must come to the point of placing much less emphasis on Inter-School and Inter-Collegiate Competitions and much greater emphasis on the physical education programme for the other 90 per cent within the school. The Competitions between institutions have their values and should be retained and improved because of these. But when major effort, time, major expenditure and major facilities are devoted to catering to the small 10 per cent who play on representative teams and the remaining 90 per cent are neglected, it means that physical education is not promoted for its highest values. It means that, once again, the desire to win distorts the view, causes us to see things disproportionately and makes it practically impossible to develop good health and good social conduct in the whole body of students. A programme that aims to give us a better social order must provide for all, must provide experiences for large numbers on such a wide scale that it may develop good social conduct in the masses, and not merely for a select few. The physical education programme for the entire student body instead of being a lifeless neglected one must form the foundation-stone for our Inter-institutional competitions. The representative teams should merely be the outgrowth or flowering of a good programme of activities for all. The programme for all must be as attractive and enjoyable as the Inter-Schools Competitions and aim to make a good athlete of every boy, rather than to be satisfied with a small handful of fairly good athletes at the expense of the many, and with no foundation for future growth and selection. If the experiences provided for players on the representative teams have all the values claimed for them, it seems reasonable to expect that the same sort of valuable experiences should be provided in as great a measure for the other students also.

Realizing that we learn what we practise we must see to it that the experiences provided are such as call for the practice of those qualities that are most desirable. In order

to teach fair play we must provide ample opportunities for practising fair play, opportunities for discovering that playing fair is more satisfying to all concerned than is cheating. If we permit cheating we succeed only in teaching cheating. In other words, it is our duty and our privilege to so teach that the practice of good qualities such as fair play, honesty, respect, co-operation, loyalty, etc., may be found the most satisfying and that the undesirable practices may be found annoying. We cannot teach morals and ethics by lecturing about them. Only as we provide experiences and guidance in the practice of desirable conduct will desirable conduct be learned, and it must then be practised over and over again until it becomes a lifelong habit.

What a disgrace it is for a man to grow old without ever seeing the beauty of which his body is capable.

—XENOPHON

In full realization of the fact that Physical Education will never make its fullest and richest contribution to the life of India until we have closely co-ordinated with it a thorough-going Health Education programme, every possible effort must be put forward to introduce and effectively carry on Health Education in every educational institution.

By Health Education we do not mean the mere traditional study, recitation and examinations of hygiene, text-book knowledge. We know now that knowledge is of value only as it is applied in everyday life. This certainly is true of the knowledge of hygiene. Therefore, health education of today must consist of a comprehensive set of experiences in health practices leading to healthful living. Such a Health Education programme must be composed of Medical and Physical Examinations, Health Service, Health Supervision, and Health Instruction. The Medical and Physical Examinations discover for us the facts which should guide us in some aspects of our Physical Education programme, and in all aspects of our Health Education work. Without the findings which can be had only by thorough and regular Medical Examination we are working blindly and not scientifically. The Health Service programme is largely the follow-up on the Medical Examination and consists of corrective and remedial measures, preven-

tive and immunizing measures, first-aid treatment, dispensary and sick-room care, etc. Health Supervision is necessary to help students to apply healthful living to every corner of their environment. Its purpose is to discover any violation of the rules of Hygiene and Sanitation in Living Quarters, Mess Halls, Class Rooms, Playgrounds and Compounds generally, to rectify the defects and to help students to put the rules of health into actual practice. Health Instruction and Health Guidance aim at much more than teaching and learning facts about health. They form a process of providing not only knowledge but also such a variety of experiences in healthful living that the outcome may be attitudes, habits and skills ensuring personal and community health.

For the benefit of any who may have the notion that physical exercise alone will build strong bodies we particularly stress the claim for the inclusion of health education. Bodies cannot be developed without proper feeding as well as exercising, and so it becomes essential to pay careful attention to the whole problem of diet and nutrition. Health cannot be maintained and promoted in environments detrimental to health nor by people of faulty health habits, even though they may have exercise habits. Exercise without proper attention to the fundamentals of hygiene and sanitation will be harmful rather than beneficial. Thus, our plea for Health Education as a necessary co-partner with Physical Education. The new world order will require particularly healthy people. Physical Education alone cannot produce them.

We must turn our attention to research work in the field of physical education and health education. Little or nothing of this sort has yet been done in India although other countries have done much and have thereby made valuable contributions, not only to their own countries but to the whole world. There are many special studies which need greater attention for the robust constitution. The Y.M.C.A. College of Physical Education has been searching for ways and means of making it possible for some studies to be made by men who may be sufficiently interested and capable of carrying them out. We have faith that some day the way will be opened. *

AN INTERVIEW WITH DR. J. P. THOMAS

Very recently a team of world's outstanding Russian gymnasts and the U.S. coaches visited in a month's gap to Tamil Nadu camped and conducted coaching classes for our athletes for about a week in Madras. Sportsmen from distant places attended the week long function. Dr. J. P. Thomas, The Principal of Y.M.C.A. College of Physical Education also attended the function. As the head of the College of Physical Education he is being interviewed by the Tamil Arasu representative with a curiosity to know about his views on Russian and American athletes and how he feels about the Indian talents in the world of sports and games. Herein he suggests some measures to improve our standards to the international heights.

Q. What is your assessment about the American Athletes ?

A. The purpose of the visit of the American Athletes is more a Cultural Exchange programme rather than for mere competition with the Indian Athletes.

They were athletes of outstanding ability and added to that what impressed me most was their ability to impart instructions under the guidance and supervision of their Chief Coach Mr. Godslove. They were able to talk freely, discuss pattern of training and also help wherever they can to the large number of Indian athletes who gathered for their instruction.

Q. To what extent this track and field team will be of use to our athletes ?

A. I do not think that all our athletes have reached their maximum level of excellence and there is still hope for improvement; perhaps by this exposure to highly trained athletes, most of them, I am sure, will be inspired to work more intensely and also to look for higher levels of performance.

Q. What is your opinion about the Russian Athletes ?

A. The Russian Athletes who visited us recently were specifically intended to compete with Indian athletes, and as such we have had no opportunity to look into their pattern of training or diet, or exercise, etc. as we had the opportunity with the American Athletes.

Q. Do you think that the Russian Athletes, are superior to American Athletes ?

A. In terms of their performance there is nothing to choose between.

Q. Can you throw light on their demonstration ?

A. We were glad that they catered to the needs of our athletes at Rajarathnam Stadium and along with that they were able to visit the Y.M.C.A. College of Physical Education and the Don Bosco Athletic Club and put up demonstrations with explanations. This was of real value to the budding athletes.

Q. Have you got anything specific to say about ?

A. I noted something very-unique with the Coach, Mr. Godslove. He had always time enough to attend to the needs and necessities of his athletes and I remember distinctly while one of their athletes in the 110 m. Hurdles who was measuring the distance in between the Hurdles rushed upto Mr. Godslove and asked him to check on the measurements. In the meantime, I called on the technical surveyor and had the distance measured to my satisfaction. The Coach in the midst of his busy conversation with the dignitaries who were coming in to attend the Competition politely excused himself and went straight to measure the distance himself, and then called the athlete and gave a gentle tap in his shoulders and said to him 'It is okay Joe'. This I thought must be the relationship between the athlete and the Coach and depicts the involvement of both towards excellence.

Q. Having seen both the Russian and American Athletes do you find any difference in the method of training our athletes and those who came from abroad ?

A. American athletes spend more time in training—sometimes 4 to 6 hrs. a day and our athletes, I think do not spend that much time due to their involvement in so many other daily routine. Intensity of training is an essential factor and the skills have to be built in a slow and steady manner, and this again cannot be achieved overnight without adequate effort.

Q. Does your College possess facilities to follow up the type of American programme ?

A. We have to make an all out effort to tap the talents and group them together and see of the intensive training these exceptional group can be provided under technical leadership.

Perhaps, the Sports Schools as it is followed in East European countries may be the answer by which outstanding youngmen in a particular game or sport is selected and are admitted for academic purposes in selected Schools where they can continue to be in training under special leadership and make this as an integral part of any scholastic or club work. This needs Government support and I am sure that any enlightened Government will not lag behind for a scheme like this.

Q. Is there anything very new about the training programme ?

A. I must say that there are no secrets and also modern physiological studies have indicated that the muscular system and the Cardio-respiratory systems of the athletes have to be well coordinated if performance is to be increased or continued for longer time.

There is enough leadership in India and it is for our athletes to avail of opportunities. What is required is an exposure of our budding athletes to this necessity.

Work, Work can produce results.

Our youngmen need not be ashamed of the sweat and toil they put on the fields. Their efforts are bound to pay high dividends.

Q. What else can be provided to Indian athletes to improve their standards ?

A. (1) Systematic training and periodical check on their performance ;

(2) Constant competitions ;

(3) Public encouragement and recognition and lastly an assurance to the athletes that the society will look after their future if they can bring glory to the State or his country through sports.

Q. Does Y. M. C. A. College provides such facilities to its students to improve their standard ?

A. Y. M. C. A. College of Physical Education provides every conceivable type of facilities to its pupils for a better standard.

The College of Physical Education, Saidapet was given an 80-acre site vacated by the Agricultural College when it moved to Coimbatore from Madras. It was taken by the then Principal of the College under almost duress ; but it has since proved a blessing, for you can't imagine such a vast campus so ideal for a residential college devoted to all kinds of sports in the heart of the metropolis.

This is one of the 54 colleges of physical education in India and there are three such colleges in Tamil Nadu, including the one at Saidapet. The other two are located at Karaikudi and Coimbatore. One striking feature is that students from Punjab predominate ; the Principal says that though there are four physical education colleges in Punjab, there is still a large unsatisfied demand in that State.

The pressure on the Saidapet college is none too easy either, because for the 400 seats it has to offer, over 10,000 applications are received. One of the current students is Mr. Shimre an M.L.A. from Nagaland.

Kabaddi : This village sports has gained All-India importance and

large-scale tournaments are conducted in it ; the college offers training in this sport to all its students.

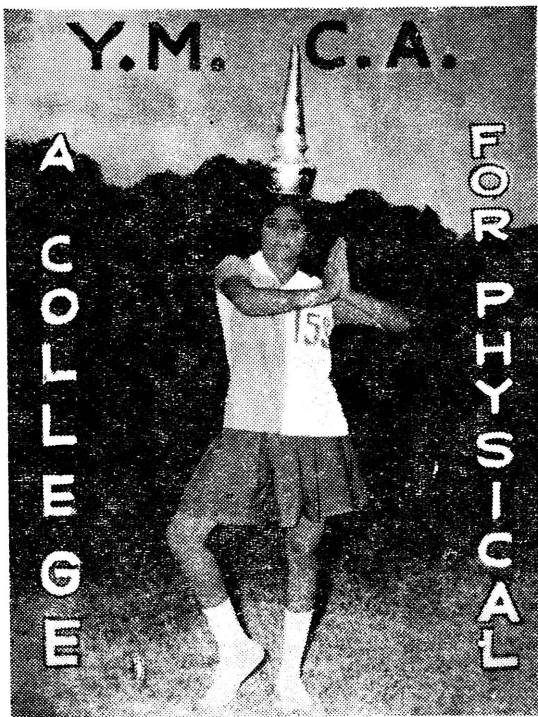
Wrestling : The college has three 'Malcoms,' one in the traditional Indian style fixed to the ground, and two others, one a hanging Malcom and another a cane Malcom ; the

Principal claims that the cane Malcom particularly gives very fast reflexes to the trainee and calls for extreme agility of muscular action. "We have been losing championship in wrestling mainly because we did not give enough devotion to muscle power in our wrestlers as we did to brawn power.

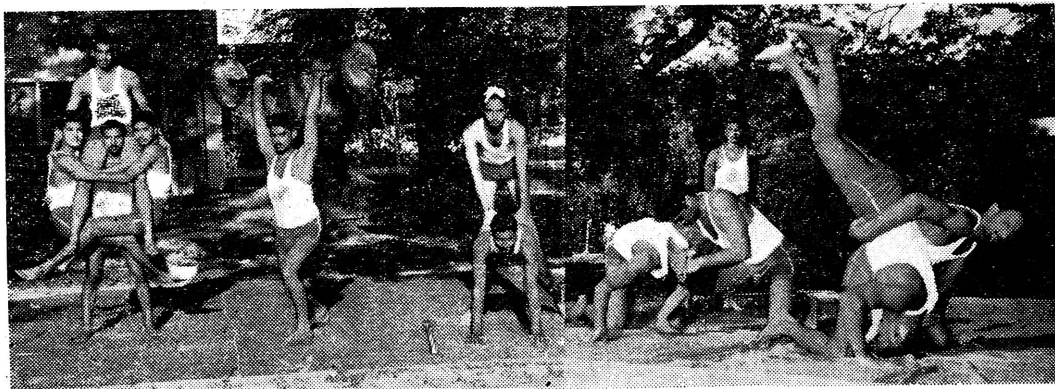
Yoga : This is compulsory to all students because of its capacity to give and build up the power of resistance in practitioners. The College authorities have selected a few of the yogas as conditioning exercise to all men and women students. It is not popular in schools because there is no thrill of finish in yoga. Though it is an excellent form of exercise it is not popular with students because it does not convey the merit of winning prizes in it for skill.

Karagam : There is nothing like karagam for teaching posture ; it comes so naturally to our women who carry heavy loads on their heads and still walk erect without a care, gaily conversing with each other and nodding from side to side with complete abandon.

Mass Drill : There is nothing like the mass drill to give the trainees



EDUCATION



Physical training taught to students in weight lifting and wrestling, the most popular games among the rural population in India

FOLK DANCES and Karagam of Tamil Nadu are regularly practiced as they impart postural grace and fluid movement of limbs so essential in competitive sports.

KHABADI a popular game among the rural populace is taught to the students.

instant reflexes and obedience to a single command. This was perfected in Germany to instill mass patriotism and national upsurge. Our own system has been an amalgam of the Swedish, and American systems superimposed on Indian athletic genius. This has been largely developed by Mr. H.C. Buck the first Principal of the College.

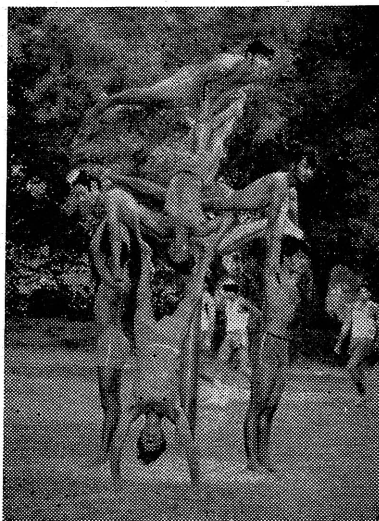
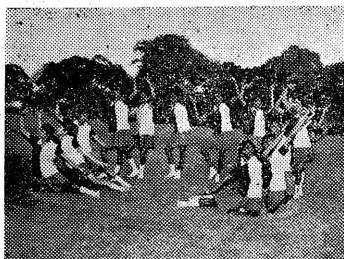
PURPOSE OF SPORTS

Eastern : To distill human strength into speed and skill and to elevate mankind's mind above the weakness of reward and recognition is the sole purpose of sports.

Greece : If you want to be strong run ; if you want to be handsome, run if you want to be wise, run. 200 years later Horace said : If you don't run when you are well, you will have to run when you fall ill.

PHYSICAL EDUCATION

Physical Education forms an important part of the modern programme of general education. It includes physical activities and sports of all kinds designed



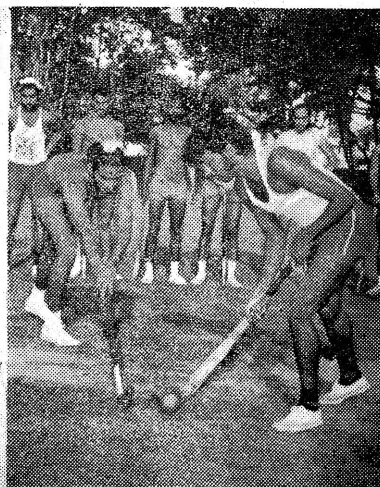
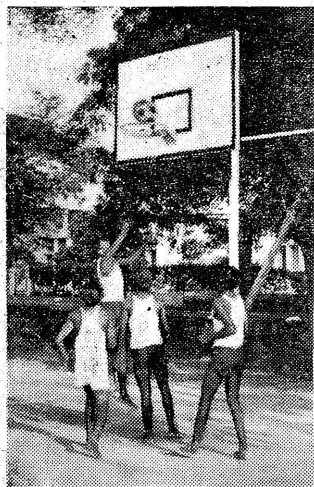
The students of the Y.M.C.A. College trim and conditioning their body with a variety of exercises.

to improve posture, physical development, and general fitness and health. Physical education also provides fun and recreation. Programmes in physical education cover a wide variety of activities.

Many high schools also include calisthenics, gymnastics, and various fitness tests in their physical-education programmes. Instructors teach health and safety, including the principles of hygiene, nutrition, and general physical care. Sportsmanship is also emphasized, along with desirable personality traits and character qualities. Many high schools have organized intramural sports programmes, as well as varsity competition between schools.

Physical education is one of the newest subjects in the modern educational programme. But it is one of the oldest forms of education. Physical training has always been fashioned to the culture of the people and of the age. For example, the Spartans stressed physical training in order to make better soldiers. During the Renaissance, physical education was encouraged as a necessary part of developing a complete personality.

The Swedish system attempted to increase the physical development of young persons. This system of exercise stressed postural position, or positions that were fixed and held by command and signals. The Swedish system spread throughout



Basket Ball and Hockey coaching imparted to students.

BASKET BALL : The game was introduced in India through Y. M. C. A. College of Physical Education. Mr. C. C. Abraham, the former Principal of the College, was the founder of the Basket ball Federation.

HOCKEY : India's national game - Hockey - receives greater attention. The Y.M.C.A. College Prof. M. Narendranjit Singh, the former national player, gives coaching in hockey.

the world, and is recognized as the best method for developing weak muscles and correcting faulty posture among large groups of youths. Later, the stall bars, balance beam, the swinging pole, vaulting, the long horse, and the buck were added to the Swedish system.

History shows that man played even in the earliest times. He gradually organized his play into games, and, as civilization developed, his games or sports developed. Early societies used sports to train people for survival and for war. Then, as people learned to live together more peacefully, sports festivals developed.

The Olympic Games became the most outstanding of the early sports festivals. These Grecian games started in 776 B.C., and included many events such as the javelin throw that are still part of the Olympics. Sports developed slowly during the Dark Ages and Middle Ages, but grew in the Renaissance and Reformation periods.

Educators finally recognized the importance of sports in the total education of boys and girls, and play and exercise became part of the school program. *

Photo below shows

WOMEN'S ACTIVITIES (left)

The women students are separately trained and their activities are attuned to their physical and mental build-up. They use light apparatus in varieties of forms and shapes.

PYRAMIDS (right)

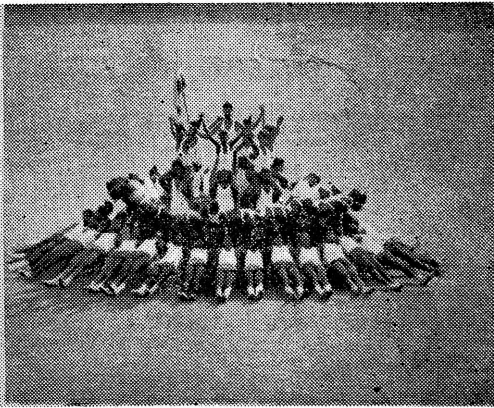
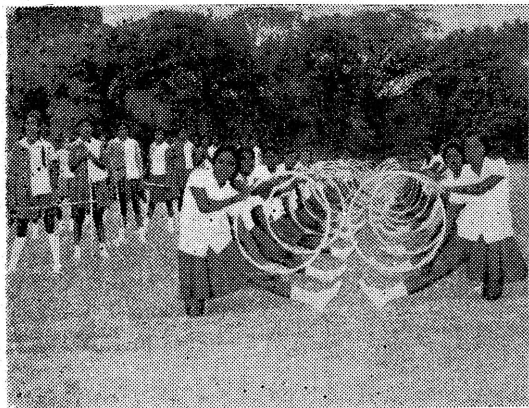
Pyramids are the part of gymnastic work where the weak and the strong, the tall and the short and the hefty and the lean can be involved effectively. This provides room for imaginative involvement of small group. A pyramid on a flower pattern is shown in the picture.

PHYSIOTHERAPY

Sports medicine is a new branch of science which is becoming increasingly popular with medical men. Injuries to the athletes are of a special type and they need both preventive and curative devices ; so that injury is reduced to the minimum and the recovery is made possible rapidly. In this venture physiotherapy plays a significant role. The College has a separate Department of Physiotherapy and the college doctor is an advanced specialist in sports medicine.

FIRST AID

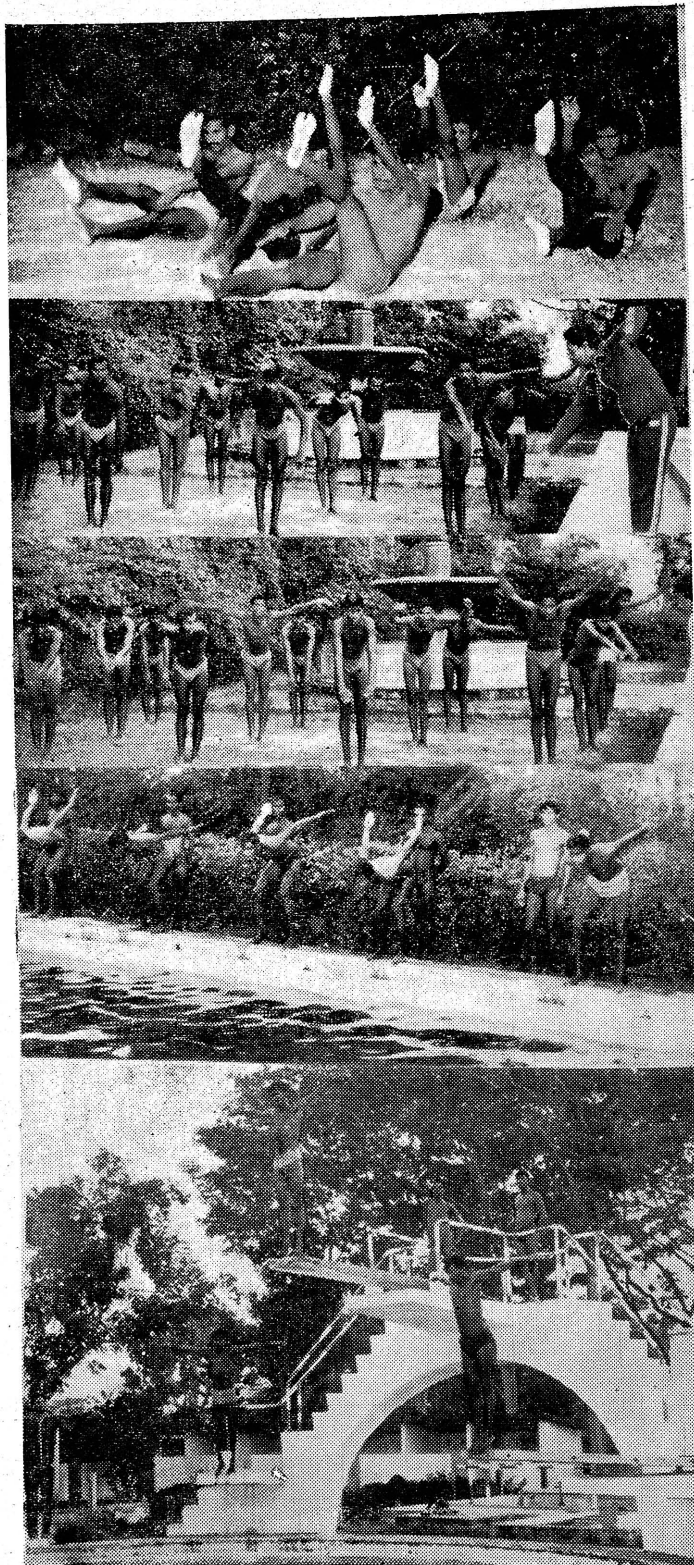
First Aid Training is provided as a regular course of instruction and every student must pass the St. John's Ambulance First Aid Test before graduation. Their work involves constant administration of aid to the injured and as such this course has very practical value.



Coaching In Swimming Imparted To Students Of Both Sexes



Coaching in swimming is provided to both boys and girls. The Y.M.C.A. College of Physical Education is the first College of its kind to have a swimming pool of its own. The swimming pool is utilised to their best advantages by the students of the college as well as the public. Here swimming competition is not unoften conducted for men, women and boys. Every student has to take a swimming test as part and parcel of their training. The pictures sideways bring out the swimming coaching imparted to male students of the College.



The Y.M.C.A. College girls are given training in Karagam dance. Karagam is popular in several districts in Tamil Nadu. It provides the best means of training in posture for our girls. Apart from this it is a folk art peculiar to Tamil Nadu which requires rejuvenation.

Folk dances vary from State to State in India. Each type has got its own speciality and uniqueness. These dances are mostly carried out with a view to keep the body slim. Y.M.C.A. being an All-India Institution conducts classes on folk dances of various types to its students from Kashmir to Kanyakumari and from Nagaland to Bombay.

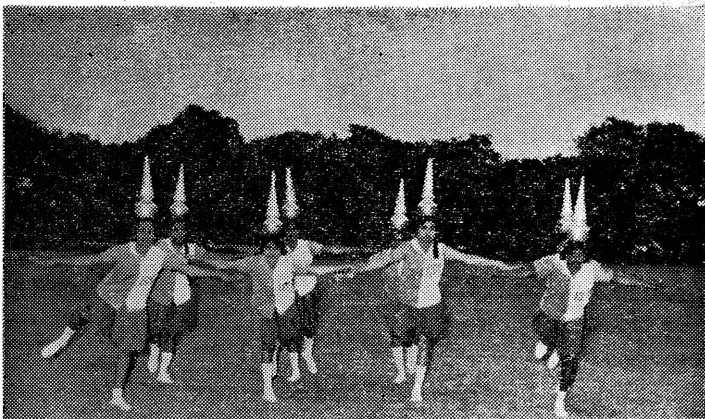


Photo middle :

The joyous Bajra of Punjabis after the harvest is shown.

Photo below :

Shows the Gujarat pot dance for girl students.



GANDHI STADIUM AT SALEM

With the inauguration of the newly built Gandhi Stadium at Salem on 11th January, 1974 by Dr. M. Karunanidhi, Chief Minister of Tamil Nadu, the long-felt need of the people of that area has been duly met. Constructed in a spacious and sprawling area of 15.06 acres of land in the vicinity of the Cobbler Lake in Salem at a total cost of Rs. 9 lakhs, the Stadium contains modern facilities both for the outdoor games such as Football, Volley ball, Basket ball, etc., and for the indoor games such as Table Tennis, Carrom, Chess, etc. Apart from these, separate rooms have been constructed for players, coaches, teams and office. Bathroom facilities and accommodation for as many as 3,000 visitors have also been provided in the Stadium.

Inaugurating the stadium, the Chief Minister announced a lump sum Government grant of Rs. 5 lakhs towards the Stadium construction fund and he assured the Committee that one lakh rupees would be paid immediately.

In short, the opening of the Stadium has opened a new bright chapter in the annals of the sports lovers of that area.

Fourth all India Rural Sports

The Fourth All India Rural Sports was held in the Mahatma Gandhi Stadium, which is newly constructed in the heart of the Salem City. The sports tournament was held from 13th February, 1974 to 16th February, 1974 in which more than 1,200 boys and girls from 20 States participated.

The function was inaugurated by the District Collector Thiru C. Chellappan, I.A.S. The Hon'ble Thiru. Ram Nivas Mirdha, Union Minister in the Ministry of Home Affairs had performed the opening ceremony of the Tournament.

The games like Foot-ball, Volley-ball, Kabaddi, etc and sports items like Wrestling and Athletics were

held continuously from 13th February, 1974 to 16th February, 1974 which were more interesting and enchanting.

The concluding function of the Fourth All India Rural Sports Tournament was held on 16th February, 1974 at 4-00 P.M. Hon'ble Thiru K. Rajaram, B.A., Minister for Labour, presided over the function. General P.P. Kumaramangalam, President, All India Council of Sports performed the closing ceremony of the Tournament.

Prizes had been distributed to the winners and Athletics Champions. Tamil Nadu Team won Football and Kabaddi.

Among the members of the sports council the following are the persons who took active part and vital role in constructing the stadium :—

1. Thiru C. Chellappan, I.A.S., Collector, Salem,	Chairman,	Salem District Sports Council.
2. Thiru E.R. Krishnan, M.P.,	Member,	"
3. Thiru K. Jayaseelan,	Member,	"
4. Thiru Sampasivam, Chief Education Officer	Secretary / Treasurer	"
5. Thiru Arumugham, Agri. Income-tax Officer	Member,	"
6. Thiru R.T. Parthasarathy	President,	"

—D.P.R.O—Salem.

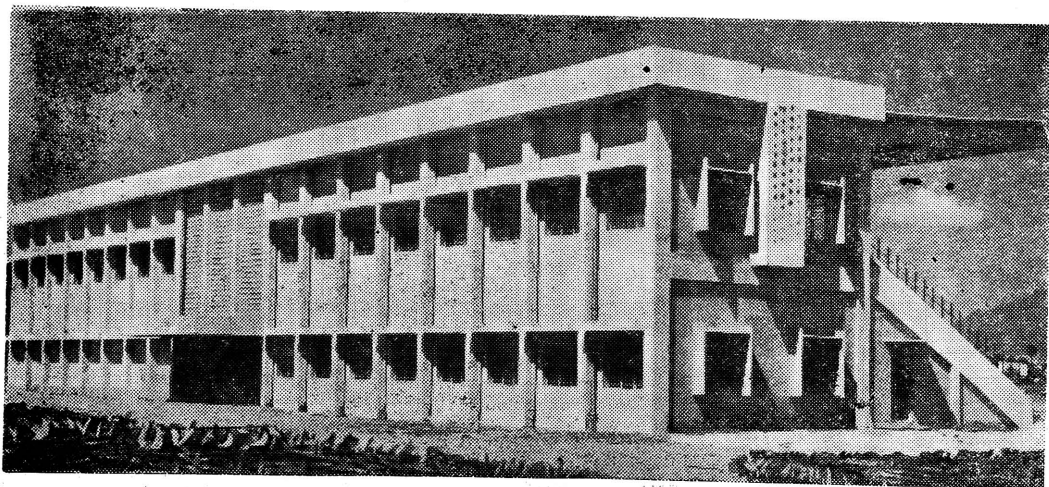


Photo shows Gandhi Stadium at Salem with its front view

The Eighth All-India Civil Services Athletic Meet In Tamil Nadu

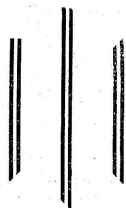
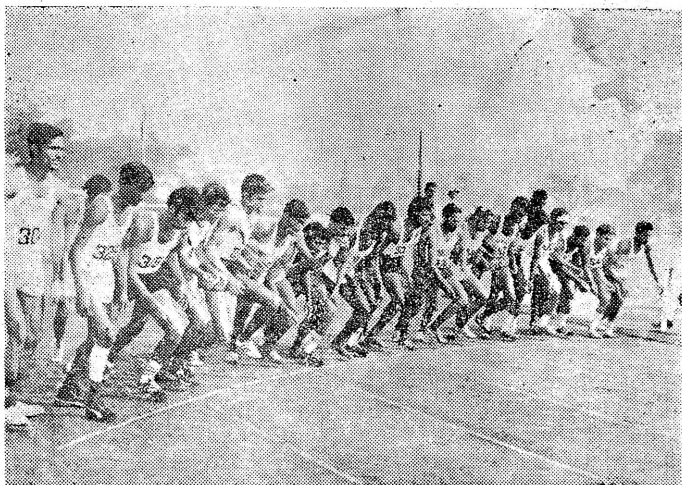
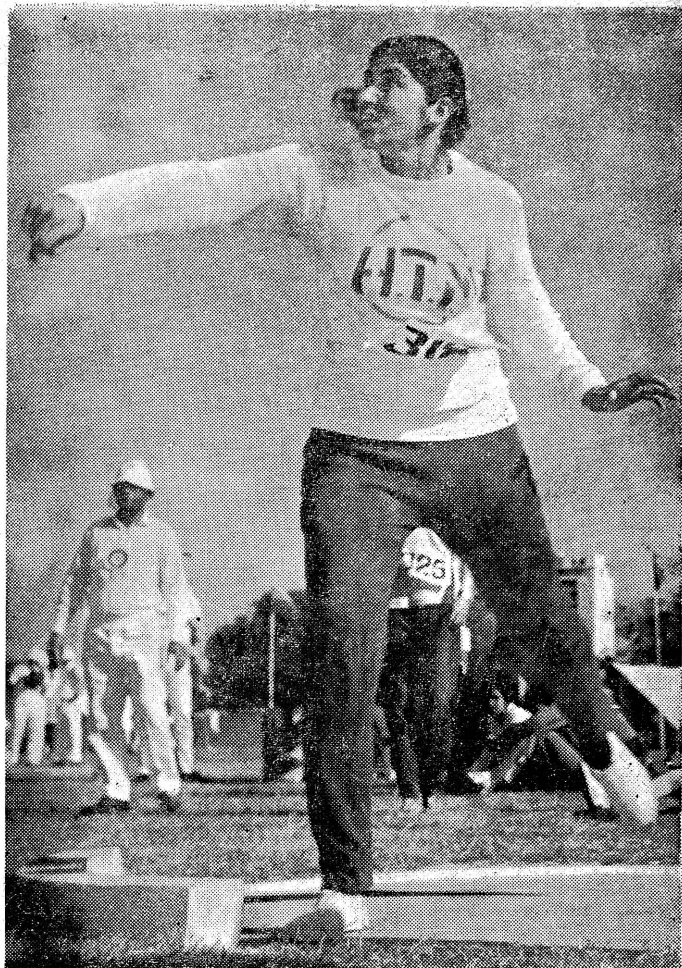


Photo above shows the discus -
throwing competition for women.

Photo below shows the running
competition for men athletes.



The VIII All India Civil Services Athletic Meet was inaugurated by the Governor, **Thiru K. K. Shah**, at 9-00 a. m. on 31st January, 1974 at **Rajarathinam Stadium, Egmore, Madras.**

The Athletic Meet was hosted by the Government of Tamil Nadu at the request of the Central Secretariat Sports Control Board.

It has attracted 22 States and Central contingents consisting of above 400 athletes - Men and Women. Competitions were conducted in 21 events for Men and 9 events for Women.

Twenty three teams from All over India participated in the Eighth All India Civil Services Athletic Meet held at **Rajarathnam Stadium Madras** on 31st January and 1st February '74. The March past and inauguration function commenced at 9 A.M. ; the best performance in the March past went to the **Bombay Team** and the second place was secured by our **Tamil Nadu Civil Services Team.**

After the March past function, the various events were started by about 9.30 A.M. In the second event itself i.e. **Pole Vault** our **Tamil Nadu Civil Services Team** was able to win a **Gold Medal.** The successful participant was **Thiru Perumalswamy, B.E., Coimbatore District.** He won the **Gold Medal** with a performance of 3.40 Metres. In **Triple Jump** our **Tamil Nadu Civil Services Team** won a **Silver Medal.** The successful participant was **S. Alexander of Salem District.** He won the **Silver Medal** with a performance 13.06 Metres. In the afternoon session also he was able to bring laurels to our State by winning the **Bronze Medal** in the **Long Jump** with a performance of 6.00 Metres.

On 1st February, 1974, forenoon session **Thiru Prabhakaran** of **Madras City** was able to win the **Silver Medal** in the 10,000 Metres run. In the afternoon session

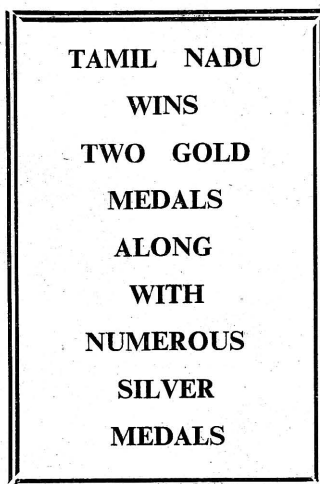
Thiru. T. Rajendran of **Madras City** got the **Fourth Place** in **High Jump**, **Thiru Kuppaswamy** got the **Fourth Place** in 1,500 Metres run and **Thiru K. Thirumalai** of **Salem District** was able to win one more **Gold Medal** for our State Civil Services Team by winning 400 Metres Race. His timing of **51.2 seconds** is equal to the **National Record** in the **All India Civil Services Athletic Meet** so far. In the 4 x 400 Metres Relay Race, our **Tamil Nadu Civil Services Team** represented by **Thiruvalargal K. Thirumalai** of **Salem District**, **Joseph Tagore**, **Chandraraj** and **Gnaratanam** of **Madras City** got the **Fourth Place.**

were also taken for sight seeing to **Mahabalipuram** and also to the **Pongal Tourist and Trade Fair.** The entire Meet was conducted in a grand manner. **Thiru. C. Ramadoss** General Secretary, **Tamil Nadu Sports Council**, who took the overall Supervision of the above Meet did a thorough job of it. **Thiru. T.D. Sunder Raj I.A.S.** and **Thiru. K.S. Sundaram, I.A.S.** both of Public Department, Government of **Tamil Nadu** were in charge of conducting the above Meet successfully.

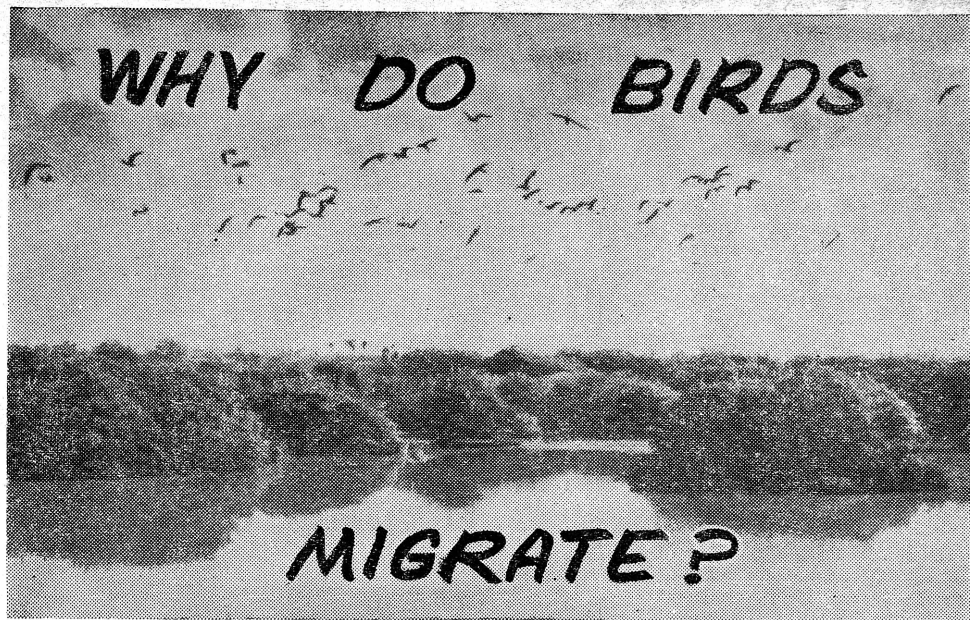
Thiru Krishnamoorthy and **Selvi Kunjammal** were in charge of coaching our **Tamil Nadu Civil Services Men and women Athletic Teams** respectively and their able guidance was helpful to the Athletes in winning so many prizes in the above meet.

The State Athletic Team comprised the following :—

Madras City Thiruvalargal. 1. I.J. Augustine, 2. Joseph Tagore 3. Chandraraj, 4. R. City Babu, 5. Chinnadurai 6. Kuppaswamy, 7. Prabhakaran, 8. P. Jayaraj, 9. Gnathinam, 10. D.J. Moses, 11. T. Rajendran, 12. N. Kamalanathan, 13. Baburajan, 14. M. Kumar, 15. Silvi A.D. Stella, 16. Selvi M. Ranganayaki, 17. Selvi B. Saraswathi, 18. Selvi. Violet 19. Thirumathi Prema, 20. Thirumathi Muneer Unnisa. **North Arcot District—**21. Lurduhsawmy, 22. G. Ramachandran, 23. Thiruvengadam, 24. P. Govindaswamy, **Chingleput District—**25. V. Subbarayalu, **Tiruchirappalli District.,** 26. Thiru P. Anbanandam, **South Arcot District.,** 27. P. Jayapau **Salem District.,** 28. K. Thirumalai, 29. S. Alexander, 30. K.K. Ramaswamy, **Tirunelveli Dt.—**31. Shanmugasundaram, 32. M. Paramasivam, 33. J.C. Manickaraj, **Dharmapuri District.,** 34. A. Murugan, 35. P. Krishnan, **Tanjore District.,** 36. Kaliperumal, 37. S. Pitchai, 38. Swaminathan, **Coimbatore District—**39. Perumalswamy, **Kanyakumari District.,** 40. Soundara raj, 41. **Tirunelveli District, A. Murugiah.**



Regarding the performance of other teams in the Meet, special mention should be made about the **Bombay Team** and the **Regional Sports Control Board Team, Madras.** **Thiru Thankaraj** of the **Regional Sports Control Board Madras** won the sprint events (100 Metres and 200 metres) in great style. **Thiru Kesar singh of Delhi** won the **Championship.** His performance in the 10,000 Metres, 5,000 Metres and 1,500 metres race was superb. The prize distribution was made by Education Minister **Dr. V.R. Nedunchezhiyan.** The participants were given a reception by the Organising Committee on 31st January, 1974 and 1st February, 1974. They



In May, 1822 in Mecklenburg, Germany, a stork was caught which had a long arrow embedded in its neck. Such an arrow was unknown in Europe. Experts established that the arrow was of African origin. That was the first concrete evidence of a fact that is well-known today, namely : birds migrate in winter to warmer climate from Europe to Africa, for instance.

Naturalists knew that the birds disappeared to warmer places in winter but no organised study was made of their movements. The first successful attempts in this direction showed that in order to obtain answers to questions puzzling ornithologists, it was necessary to coordinate efforts, if possible, on a global scale. The mass ringing of birds was the first step which began in Russia in 1910.

Between Kaliningrad (formerly Königsberg) and Klaipeda in the Baltic area there is a long, narrow sandy ribbon of land which stretches for 60 miles. On the 17th mile of the highway which runs the length of the spit, an unusual sight can be seen. To the right and left of the road, huge nets looking something like gigantic butterfly nets stretch out. They are approximately

"The number of" winged birds "in the world constitute tens of millions. Various birds fly to escape the cold. Each spring the migrants return home. So far the explanation is not known. There are many such enigmas that arises with banding. So far as the mysteries are concerned, it is now up to the ornithologists to unravel them."

300 feet long and 60 feet high and in spring and autumn whole flocks of birds are trapped in their mass as they fly down the narrow corridor of land. Some days as many as 5,000 birds are caught. Ornithologists from a nearby biological station established by the Zoological Institute of the U.S.S.R. Academy of Sciences study their habits and ring them.

The location of the station was not chosen arbitrarily. On a good day close to a million birds fly over the spit in the first four hours after sunrise. The fly-over of a hundred or so varieties of birds continues till noon and sometimes till evening. And for the scientists it is enough if a few specimens of each variety are snared. Similar work is carried out at different stations in various parts of the country. There is a centre in Moscow which coordinates and directs the work across the country.

The number of "winged rings" in the world constitute tens of millions. Perhaps one-hundredth have been traced and so in both hemispheres the "start" and "finish" of hundreds of thousands of birds has been mapped and arrows indicate where various birds fly to escape the cold.

UNSUAUL SPEEDS

At one time it was thought that in a 24 hour period migratory birds covered distances of between eight and 20 miles. Ringing has considerably revised previous estimates. Starling No. 326574 was ringed on the Kurshskaya spit and 24 hours later was snared in Belgium—a distance of 750 miles. It was discovered that small birds which fly at night cover an average distance of 200 miles at a time.

The flight usually takes between five and ten hours and after two night flights running the birds rest for three to five days.

Birds that fly during daylight hours travel more slowly.

Migratory routes do not lie only over land. The golden plover holds the record for non-stop flights over water—it flies from Alaska to the Hawaiian Islands, a distance of 2,500 miles across the Pacific Ocean and does it in 50 hours. The cruising speed of this long-distance marathon flight can be worked out to average 50 miles an hour.

INDIVIDUAL HABITS

Birds can be divided into three categories ; settled (one-fifth of all birds in the world) ; migratory (also one-fifth) ; and nomad (three-fifths). When winged nomads are not raising young, they leave their nests and can be spotted quite far from home.

It is interesting that some birds prefer walking to flying when they set off on a trip. The wild turkey, for example, travels on foot, although it is forced to take to the air when crossing rivers.

The loon escapes winter by swimming. It travels down Siberian rivers to the Taimir peninsula, there turns west and round Scandinavia and through the North Sea eventually reaches the Baltic. However, "sailors" and "infantry" are rare birds. The majority take to the air.

Each spring the migrants return home, to the north. Close on their heels the birds of the southern hemisphere turn up, not to weave nests and raise fledglings, but to escape the southern winter.

All summer long, from July through to September, thousands of sharp-beaked petrel settle along the shores of the northern seas. In autumn, together with the Siberian native birds, they head south. The Siberians find sanctuary in China and India, but the story petrel is not tempted by any foreign paradise—it stubbornly continues on its way home to Tammanian. There it hatches its fledglings. Once they are strong enough, the birds set course north. First they travel along the shores of Japan and the Kurile Islands towards Kamchatka, the Alcutians and Alaska, then swing down the west coast of North America as far as California where they turn to the open sea, towards

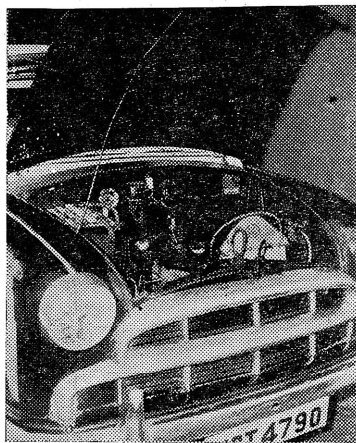
Tasmania and the nests abandoned in the southern autumn, and thus conclude their famous "Pacific Ocean loop." When they arrive at the cliffs of Tasmania, each couple settles into the nest it built and occupied months before. How do they locate them? And why do they fly so far? The simple answer is that. There is plenty of fish and food much closer.

So far, the explanation is not known. There are many such enigmas that arose with banding. The winged rings have at least charted the migratory routes of birds. So far as the mysteries are concerned, it is now up to the ornithologists to unravel them. —Source: USSR.

Information Branch.

A GADGET FOR

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In keeping with the dictum, "necessity is the mother of invention", the unavoidable rise in price of motor spirits and the threat of its scarcity have given birth to a new gadget that is going to be a boon to motorists.

The "Petrol Saver" as it is called has been devised by an automobile engineer, Mr. S.N. Chari in collaboration with Messrs. Alegendran Tractor agencies in Madurai city.

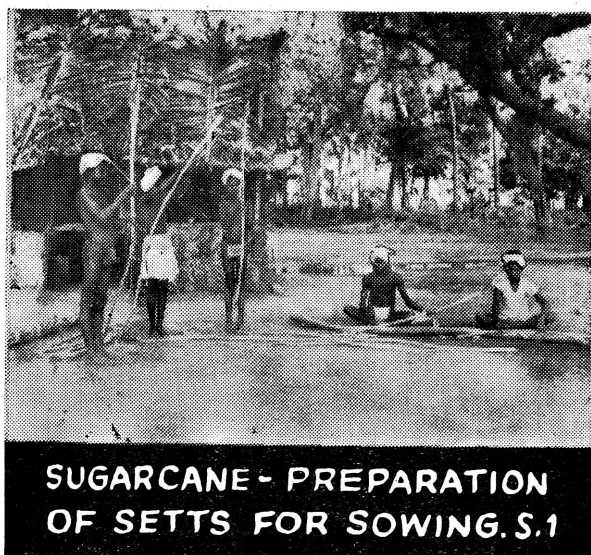
This is a simple gadget that has already been tried out on a taxi and the results, according to the taxi owner driver, Mr. Sivaraman, is that there is a forty per cent saving

on petrol consumption and there is a noticeable improvement on the pick-up too.

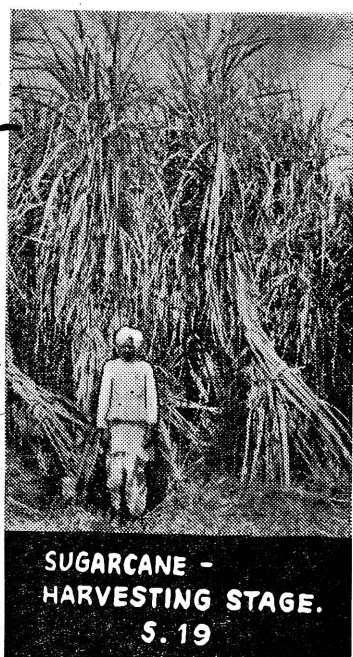
The petrol saver, to give this result, is installed in such a position that it sucks the air and the moisture from the engine and the radiator and helps to reduce the flow of petrol without affecting the speed and general functioning of the engine. The gadget is priced at Rs. 300/- and according to Mr. Alegendran, it could even cost a little less when the demand for it increases and when it is massproduced.

Field Publicity Officer, Madurai.

Tamil Nadu Marches Ahead In Sugar Production



**SUGARCANE - PREPARATION
OF SETTS FOR SOWING.S.1**



**SUGARCANE -
HARVESTING STAGE.
S. 19**

of Fifth Plan (1978—79) and 10.94 lakh tonnes by the end of Sixth Plan (1983—84). Bansil, P.C., in his book "Agricultural Planning for 700 millions" recommends a sugar constituent of 2.5 ounces per day to provide a balanced diet to an average person. Calculated on this basis, a quantity of 12.44 lakh tonnes will be required in 1978-79 and 13.67 lakh tonnes in 1983—84.

Tamil Nadu accounts for about 7 per cent of the total area under sugar-cane in India and for about 8 per cent of the production expressed in terms of gur.

With a production of about 3 lakh tonnes of sugar per annum, Tamil Nadu accounts for 1/12 of the sugar produced in India. The present production of 2.99 lakh tonnes of sugar and 5.92 lakh tonnes of jaggery (total 8.91 lakh tonnes) is just sufficient to meet the requirements of Tamil Nadu, calculated on the basis of the per capita per day requirement of 2 ounces.

But during the year 1970-71, only 1.80 lakh tonnes of sugar and 3.9 lakh tonnes of jaggery were consumed in Tamil Nadu, leaving a surplus of 1.19 lakh tonnes of sugar and 2.02 lakh tonnes of jaggery. The surplus at present is exported outside the State.

PER CAPITA CONSUMPTION

The annual per capita consumption of sugar in India is 5.8 Kgs. (supplemented by jaggery). The per capita consumption in Tamil Nadu which was 4.4 Kgs. during 1972—73 is likely to increase, in view of the increased industrial activity and agricultural production, resulting in a higher purchasing power with the people, to 9 Kgs. by 1983—84, supplemented by 6 Kgs. of jaggery.

The total consumption of sugar in Tamil Nadu was 1.28 lakh tonnes in 1960—61 and 1.80 lakh tonnes in 1970—71. The per capita consumption of sugar which was 3 Kgs. in 1950—51 increased to 3.8 Kgs. in 1960—61 and 4.4 Kgs. in 1970—71. Over the last ten year the per capita consumption increased by 0.6 Kg. as against 0.8 Kg. over the previous decade. To supplement sugar, jaggery is consumed extensively in Tamil Nadu. The per capita consumption of jaggery was 11 Kgs. in the year 1950—51 and 10 Kgs. in 1960—61 and 1970—71.

It would be seen that a total quantity of 14 kgs. of sugar (including jaggery) was consumed in 1950—51 and a quantity of 13.8 Kgs. in 1960—61 and 14.4 Kgs. in 1970—71. The total quantity of sugar (including jaggery) consumed varied from 13.8 Kgs. to 14.4 Kgs. over the past 20 years.

Today, sugar has become a must for all ! To provide a balanced diet, 2 ounces of sugar will have to be supplied per capita per day. Taking the daily per capita requirement of sugar as 2 ounces to the people of Tamil Nadu, it is estimated that a quantity of 9.95 lakh tonnes will be required by the end

Jaggery consumption has been of the order of about 10 Kgs. per capita per annum during the last 10 years (1961 to 1971) despite the increase in consumption of sugar.

REQUIREMENT OF SUGAR AND JAGGERY

With the increased production and availability of sugar, a corresponding decline in jaggery consumption is likely during the ensuing period. The per capita consumption of sugar and jaggery in 1983—84 will be 9 Kgs. and 6 Kgs. respectively. Based on the above assumptions, the demand projections for sugar and jaggery are worked out and furnished.

To produce 3.20 lakh tonnes of sugar and 6.40 lakh tonnes of jaggery and to meet the need of seed, etc., 112 lakh tonnes of sugarcane is required in 1973—74. The sugarcane requirement in 1978—79 is estimated to be 136 lakh tonnes and 163 lakh tonnes in 1983—84 to produce the above projected quantities of sugar and jaggery. The details of cane required are furnished at the top.

Based on the above requirements, it is proposed to increase the area under sugarcane from 2.98 lakh acres in 1972—73 to 3.20 lakh acres in 1973—74 as against the targetted area of 2.60 lakh acres. It is estimated that by the end of Fourth Plan (1973—74) the target of 11 lakh tonnes in terms of gur would be achieved.

22 YEARS OF PROGRESS

The area under sugarcane which stood at 1.25 lakh acres in Tamil Nadu during the year 1950—51 increased to 2.98 lakh acres in 1972—73. The sugarcane production expressed in terms of gur which was 3,30,000 tonnes in 1950—51 reached 9.96 lakh tonnes in 1972—73.

JAGGERY PRODUCTION

About 30 per cent of the cane cultivated is now being utilised for sugar production and about 60 per cent of it is utilised for the manufacture of gur.

ESTIMATED REQUIREMENTS OF CANE IN LAKH TONNES

Year	For Sugar	For Jaggery	For seed and other purposes	Total
(1)	(2)	(3)	(4)	(5)
1973—74	37.00	64.00	11.00	112.00
1978—79	67.00	55.00	14.00	136.00
1983—84	103.00	44.00	16.00	163.00

To produce the above requirements of cane, the area under sugarcane is to be extended and the yield per acre is to be stepped up as detailed below :—

Projection for area under cane, yield per acre and total production

Year	Area under cane (acres)	Yield per acre (tonnes of cane)	Total estimated production (lakh tonnes of cane)
(1)	(2)	(3)	(4)
1973—74	3,20,000	35.0	112.00
1978—79	3,63,000	37.5	136.00
1983—84	4,07,500	40.0	163.00

PROJECTIONS FOR REQUIREMENT OF SUGAR AND JAGGERY

Year	Per capital consumption in kg. per year.	Requirements (lakh tonnes)			
		Consumption.	Export	Total	Intems of cane
(1)	(2)	(3)	(4)	(5)	(6)
A. Sugar					
1973—74	4.7	2.03	1.17	3.20	37.00
1978—79	6.7	3.21	2.70	6.00	67.00
1983—84	9.0	4.74	4.51	9.25	103.00
B. Jaggery					
1973—74	10.0	4.31	2.09	6.40	64.00
1978—79	7.7	3.69	1.81	5.50	55.00
1983—84	6.0	3.16	1.24	4.40	44.00

The estimated production of jaggery is 6.04 lakh tonnes in 1973—74, 5.50 lakh tonnes in 1978—79 and 4.40 lakh tonnes in 1983—84. With regard to jaggery, the projected supply after meeting the demand in full would leave 1.24 lakh tonnes for continuing the trade in jaggery with other States and for export.

SUGAR MILLS

Due to the intensive cultivation of sugar-cane, several sugar mills have come up in Tamil Nadu during the last decade in private and co-operative sectors. There are at present 17 sugar factories in Tamil Nadu. Out of 17 sugar factories, 7 sugar factories are run by the cooperative sector and 10 factories are run by the private sector. Out of 10 private sugar factories, one factory called 'Palar Sugars Limited' is not working.

The sixteen working factories have a total installed crushing capacity of 21,840 tonnes of cane per day (Licensed capacity 29,600 tonnes). The nine private sector factories have a total installed capacity of 13,140 tonnes of cane per day (licensed capacity 16,150 tonnes) and the seven factories in the co-operative sector have a total installed capacity of 8,700 tonnes of cane per day (licensed capacity 9,700 tonnes).

Besides seven Co-operative Sugar factories which are already under production, three Co-operative Sugar factories, one in Coimbatore and two in North Arcot District, are in the formative stage. If these are commissioned, the total number of Co-operative Sugar factories in Tamil Nadu will be 10 and the licensed cane crushing capacity will be 13,450 tonnes per day.

In addition, eight more sugar factories would be set up over the next ten years period. The tentative location of these factories may be around the following places.

1. Budalur
2. Pattukkottai
3. Attur
4. Dharmapuri
5. Chengam
6. Srivaikuntam
7. Periyakulam
8. Tiruvellore

Position of sugar factories and their present capacity and proposed capacity by 1983-84.

Factories	Present crushing capacity in tonnes of cane per day	Capacity proposed by 1983-84 in tonnes of cane per day.
(1)	(2)	(3)
A. Existing factories :		
1. The Maduranthakam Cooperative Sugar Mills Ltd., Padalam, Chingleput district ..	1,000	2,000
2. The Ambur Cooperative Sugar Mills Ltd., Vadapudupet, North Arcot District ..	2,200	2,250
3. The Kallakurichi Cooperative Sugar Mills Ltd, Moongilthurai-pattu, South Arcot District ..	1,250	2,000
4. The Salem Cooperative Sugar Mills Ltd., Mohanur, Salem Dt.,	1,000	2,000
5. The Amaravathi Cooperative Sugar Mills Ltd., Krishnapuram, Coimbatore District ..	1,000	2,000
6. The National Co-operative Sugar Mills Ltd., Alanganallur, Madurai District. ..	1,000	2,000
7. The Dharmapuri District Cooperative Sugar Mills Ltd., Palacode, Dharmapuri District ..	1,250	2,000
Total under cooperative factories.	8,700	14,250
8. E.I.D. Parry Ltd., Nellikuppam, South Arcot District ..	2,200	2,750
9. Cauvery Sugars and Chemicals Limited, Pettaivaithalai, Tiruchirappalli District ..	1,000	2,000
10. Decan Sugars and Abbkari Company Ltd., Pugalur, Tiruchirappalli District ..	1,500	2,000
11. South India Steel and Sugars Ltd., Mundiampakkam, South Arcot.	1,500	2,600
12. Aruna Sugars Ltd., Pennadam, South Arcot District ..	2,000	2,000
13. Sakthi Sugars Ltd., Appakudal Coimbatore District ..	2,000	4,000
14. Mudura Sugars Ltd., Pandiyarajapuram, Madurai Dt., ..	240	1,000

The final location of these factories should be decided by an expert body after proper study of various factors.

The existing sugar factories in Tamil Nadu at present are not working to full capacity. The sugar industry is operating at two thirds of its effective capacity, resulting in loss of production. There is scope for expansion of the crushing capacity of the existing factories. Expansion has already permitted for an additional quantity of 10,360 tonnes per annum. By the end of Sixth Plan (1983—84) the crushing capacity of the factories existing and the three factories licensed would be 41,500 tonnes a day.

The eight new factories to be set up in the Fifth and Sixth Five Year Plans would have a crushing capacity of 16,000 tonnes per day by 1983—84, bringing the total capacity of cane crushed in Tamil Nadu to 57,500 tonnes a day. The details of expansion and crushing capacity of the existing and new sugar factories are furnished below :

SUGAR PRODUCTION

The production of sugar in Tamil Nadu which was only about 28,000 tonnes in 1953—54 reached a level of 2.97 lakh tonnes in 1971—72. The annual production for sugar in Tamil Nadu is estimated to be 3.4 lakh tonnes in 1973—74, 6 lakh tonnes in 1978—79 and 9.25 lakh tonnes in 1983—84. The estimated production of sugar besides meeting the demand of Tamil Nadu will leave a sizable quantity for export to other states.

The sugar industry could operate for longer duration economically if the demand of raw material is fully met with cane of good quality through out the season. Under the agro-climatic conditions prevalent in Tamil Nadu, the sugar industry should be able to work for atleast 240 days in a year. The managements of the sugar factories should devote more attention to planning, cultivation and development of cane to ensure adequate supply of quality cane, which is the principal raw material. The cane growers should be regarded as the back-bone of the sugar industry and the factories should do everything to maintain cordial relationship with them and improve their economic and social status.

15. Kothari Sugars Ltd., Kattur, Tiruchirappalli District ..	1,500	2,500
16. Thiru Arooran Sugars Ltd., Vadamangalam, Thanjavur District ..	1,200	2,000
17. Palar Sugars Limited, Melpatti ..	400	400
Total under private factories ..	13,540	21,250

(1)	(2)	(3)
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B. Factories licensed and under construction :—

18. Vellore Cooperative Sugar Mills Ltd. ..	1,250	2,000
19. Tirupathur Cooperative Sugar Mills Limited ..	1,250	2,000
20. Coimbatore Cooperative Sugar Mills Limited ..	1,250	2,000
Total ..	3,750	6,000

C. New factories proposed :—

21. One factory in 1976—77 ..	1,000	2,000
22. One factory in 1977—78 ..	1,000	2,000
23. One factory in 1979—80 ..	1,000	2,000
24. Do ..	1,000	2,000
25. Do ..	1,000	2,000
26. One factory in 1980—81 ..	1,000	2,000
27. Do ..	1,000	2,000
28. Do ..	1,000	2,000
Total ..	8,000	16,000
Grand Total ..	33,990	57,500

HIGHER PRICE FOR CANE

“Private sugar mills in Tamil Nadu have agreed to pay increased prices for cane, the increases ranging from Rs. 7.80 to Rs. 14.40 per tonne over the statutory price fixed by the Centre for this season.”

Honourable Minister for Agriculture Thiru Si. Pa. Aditanar announced this after discussions with representatives of cane-growers and private sugar mills.

The new factory-wise prices are : EID-Parry Rs. 90 (against Rs. 80.90 notified by the Centre). Cauvery Sugars Rs. 92.50 (Rs. 80), South India Steel and Sugars Rs. 91.60 (Rs. 83.80), Aruna Sugars Rs. 95.30 (Rs. 81.90), Sakthi Sugars Rs. 102.90 (Rs. 88.50), Kothari Sugars Rs. 100 (Rs. 85.60), and Thiru Arooran Sugars Rs. 92.50 (Rs. 80).

Prices in respect of Deccan Sugars and Abkhari Ltd., Pugulur, and Madurai Sugars Ltd., will be finalised after further discussions.

The additional commitment to the factories on account of the increased prices will be about Rs. 4 crores.

It has been agreed in principle to evolve a formula for sharing profits between the management and cane-growers to be applied on a long-term basis commencing from the current sugar year.

SUGAR RESEARCH INSTITUTE

There is a proposal to establish a Sugar Research Institute in Tamil Nadu. The Government of Tamil Nadu have proposed to incur a revenue expenditure of Rs. 5 lakhs in the setting up of the above institute. The factories have offered to contribute Rs. 5 lakhs. The proposed institute will have teaching, research and development, advisory and extension services wings and will meet a long-felt need of the industry.

SUGAR-CANE DEVELOPMENT SCHEME

The object of the scheme is to carry out intensive propaganda to educate the ryots in improved methods of sugar-cane cultivation. Quarantine, primary and secondary nurseries are raised in cultivators' holdings with a view to saturate the entire areas under sugar-cane with pure, healthy and disease-free short crop material.



In order to encourage the use of such short crop seed material, subsidy is given by the Government of Tamil Nadu through the Department of Agriculture, to the growers who raise the nurseries and also to the cultivators who transport the seed materials from the nurseries to their own fields. The implementation of the scheme has resulted in most of the area under sugar-cane being covered with improved Coimbatore varieties.

Manurial demonstrations are conducted and subsidy of Rs. 50 per demonstration plot is given.

Hand operated and power sprayers are made available to the cultivators on reasonable hire charges.

Under biological control, breeding and releasing of parasites are done in the following seven parasite breeding centres :

1. Kancheepuram.
2. Ambur.
3. Gobichettipalayam.
4. Lalgudi.
5. Melur.
6. Vridhachalam.
7. Kallakurichi.

The quality and quantity in the production of sugar-cane is affected due to availability of inadequate water during summer months. Under the Sugar-cane Development Scheme, sugar-cane growers are therefore advised to take advantage of the crash programme of the Government of Tamil Nadu for sinking of well in the different districts and to provide regular irrigation during summer months.

With a view to encourage cane growers to go in for higher yields of sugar-cane and this increase production, crop competitions are held at State, Taluk and Factory levels and prizes are awarded every year.

Sugar-cane zonal farms are run to find out the suitability of different varieties of cane for the different factory zones and to formulate the best agronomic practices for each area. The sugar factories provide necessary land and other facilities while the department of Agriculture provides the technical staff for conducting the experiments. The Government meet the expenditure on



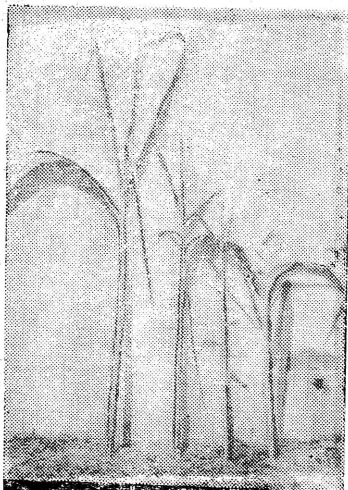
SUGARCANE - TOP SHOOT BORER S.9

the staff while the factories meet the cultivation expenses.

SUGAR-CANE ROAD DEVELOPMENT SCHEME

The object of the scheme is to form and improve the roads in and around the various sugar factory areas to ensure easy and quick movement of sugarcane from the fields to the factories. It is of utmost importance that sugarcane harvested in the fields is transported to the factories and crushed in the shortest time possible. If the time lag between the harvest and crushing is more than 24 hours rapid deterioration sets in, in the sucrose content of the cane resulting in avoidable loss of sugar to the factory as well as the nation. Therefore, a portion of the Sugar-cane Cess Fund collected from the Sugar Factories is diverted every year for the development of roads. An increased allotment of Rs. 50 lakhs was made in the Budget for 1972-73.

The Special Engineering Cell for the Sugar-cane Road Development Scheme functioning with headquarters at Madras is having four subdivisions at Bhavani, Panruti, Tiruchirappalli and Dindigul for the execution of road works in the various sugar factory areas.



**SUGARCANE - TOP -
ROT DISEASES,
VARIOUS STAGES. S.6**

The question of formation of a separate circle for attending to the works under sugarcane development as well as other road works under the Cauvery Command Complex is separately under the consideration of the Government of Tamil Nadu.

With a view to ensure that the road works executed under the scheme are in good condition to facilitate uninterrupted free flow of sugar-cane traffic, the Government of Tamil Nadu have entrusted the maintenance of the road works executed under the Sugarcane Road Development Scheme to the State Highways Department and the expenditure thereon will be met from the Sugarcane Cess Fund. A provision of Rs. 50 lakhs has been proposed under the Sugarcane Road Development Scheme for 1973-74. The target for 1973-74 is to form and improve road to a length of 40 kilometres.

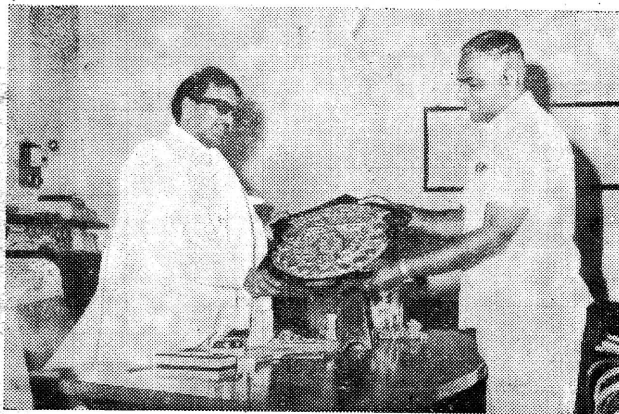
Thus, the Government of Tamil Nadu is taking necessary steps to increase the production of sugar, the essential commodity of all !

R. M.



**SUGARCANE - TESTING
WITH REFRACTO -
METER FOR MATURITY
S.17**

TAMIL NADU WON THE FIRST PRIZE IN ALL INDIA BANANA COMPETITION



Dr. K. K. Karunanidhi, Chief Minister of Tamil Nadu looking at the special shield awarded to the Government of Tamil Nadu, shown by Thiru. A. Venkatraman, Director of Agriculture, Madras.

In the All India Banana and Miscellaneous Fruits Show, 1973 held at Trivandrum (Kerala State) on 8th and 9th December, 1973, Tamil Nadu State sponsored several farmers as competitors and also competed directly through the State Model Orchards and Fruit Research Stations at Kanyakumari, Pechiparai, Periakulam and Thimmapuram.

Out of the 104 competitors fielded against 274 total competitors, Tamil Nadu secured 14 first prizes, 15 Second Prizes and Special Award for the Best Aggregate points obtained by States.

Highlight of the success is that Tamil Nadu bagged the FIRST Prize for all the major varieties of Bananas such as POOVAN, RAS-THALI, DWARF CAVENDISH, ROBUSTA, HILL BANANA, MONTHAN and also GUAVA.

The Government Orchards of Tamil Nadu secured awards in the share of I and II Prize totalling 5 in number.

Rapid Green
Revolution



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Classes

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up to P.U.C.

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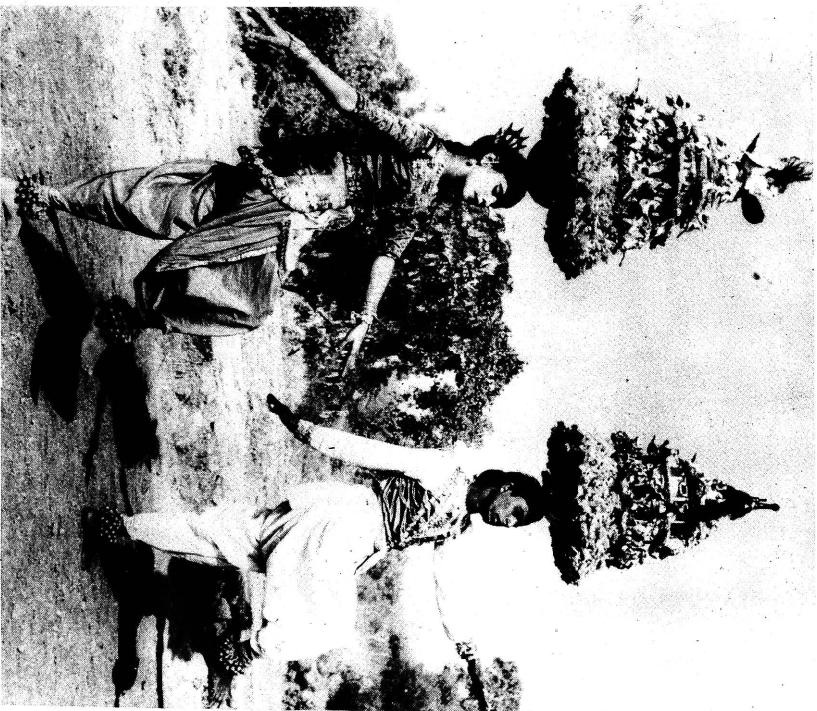
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