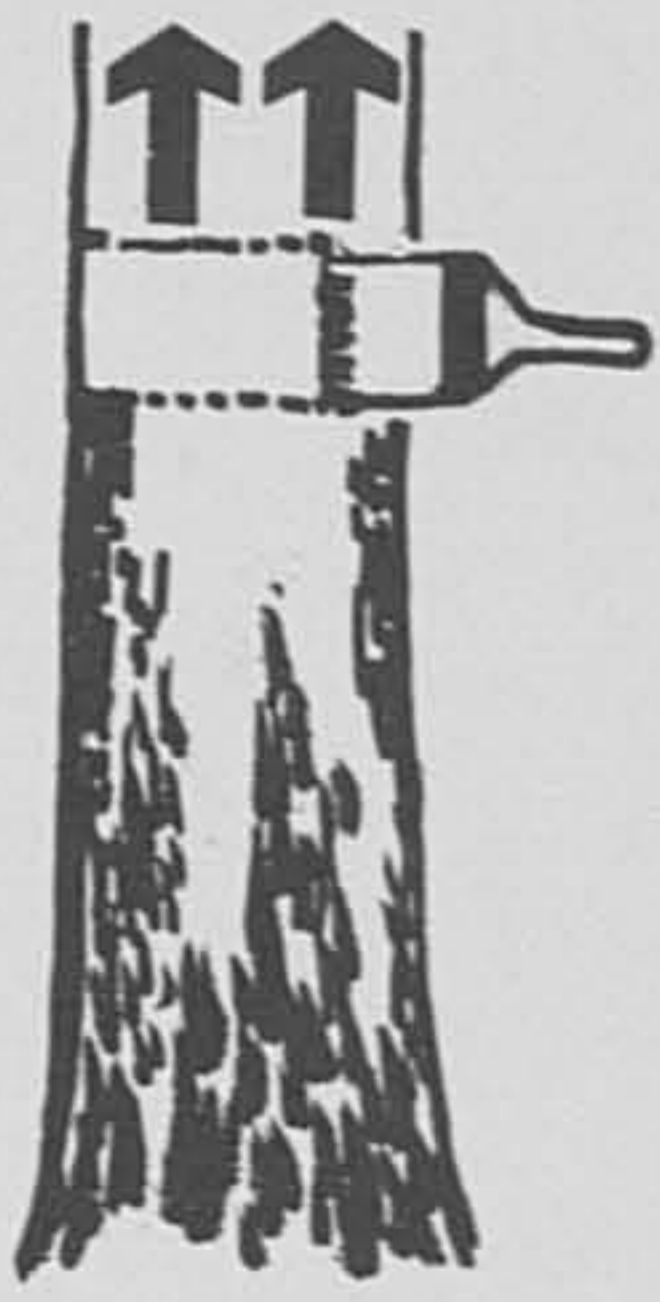


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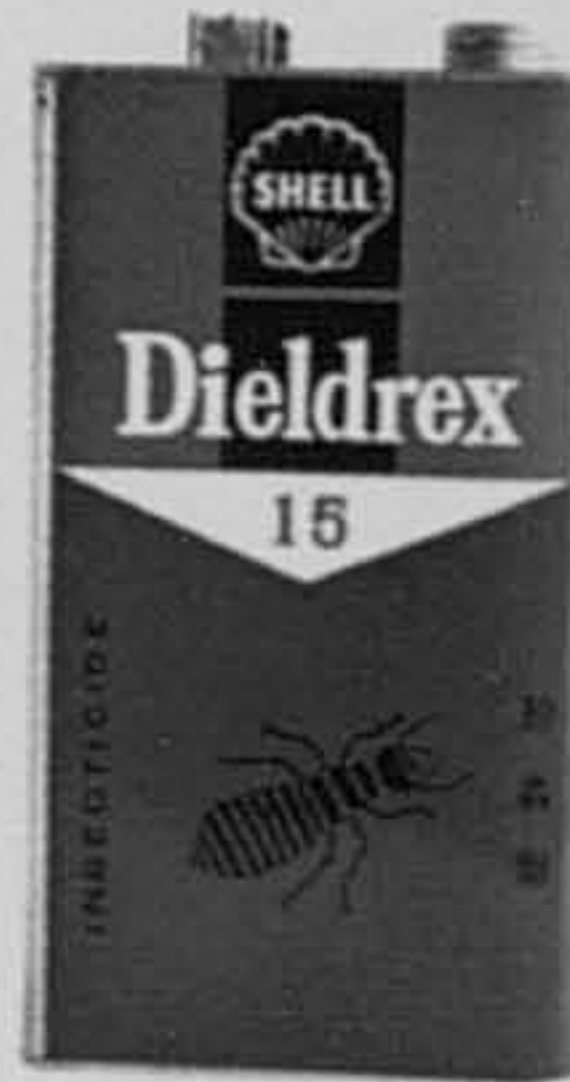
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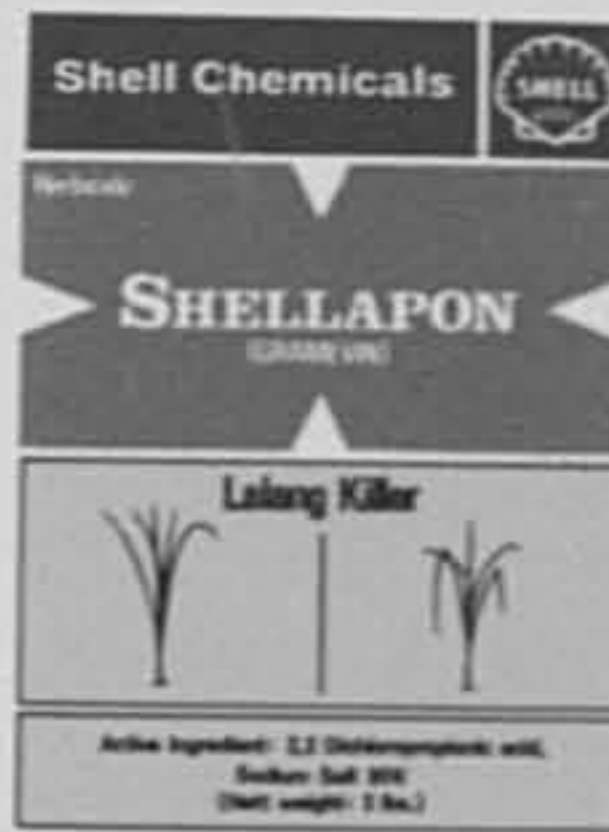
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and
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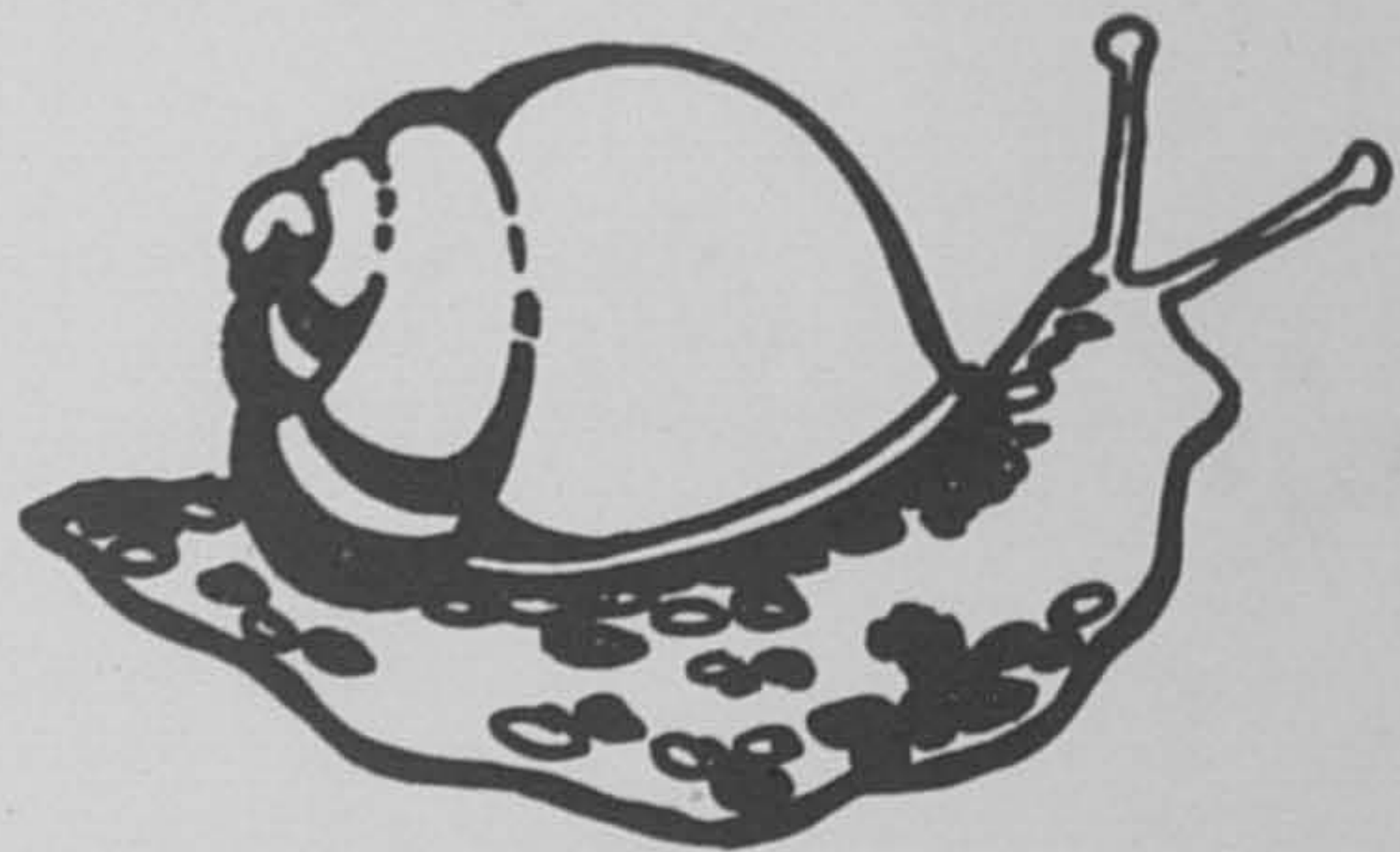
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May 1973

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NOTE

The Planter assumes no responsibility for the statements and opinions expressed by contributors.



The Incorporated Society of Planters

Founded 1919

THE SOCIETY REPRESENTS the Planters of Malaysia and other territories, whose personal and professional interests it is bound to endeavour to secure and promote.

OBJECTS foremost in the Society's Memorandum of Association are:

- To promote the general interests of the planting profession.
- To promote the advancement and facilitate the acquisition of that knowledge which constitutes the professional qualification of planter.
- To watch over, promote and protect the mutual and individual interests of its members in respect of matters pertaining to or arising from their employment in the planting profession.
- To promote and maintain good feeling, co-operation and understanding between members and their employers.

ACHIEVEMENTS of the Society are a technical education scheme, the publication of authoritative works on tropical agriculture, a monthly magazine featuring original technical articles, the sponsorship of conferences and symposia on tropical crops, and the organisation of joint consultation with employers.

MEMBERSHIP of the Society is open to: —

- A Those directly employed in plantation management such as estate managers, assistant managers, superintendents, supervisors and cadets, and
 - B Executive engineers, estate medical officers, and qualified scientific or administrative staff of estates or organisations mainly concerned with the planting industry.
- Category B may include those employed in such other senior executive, administrative, professional or advisory capacities as may be deemed by the Executive Council as being equivalent thereto
- Neither category shall include clerks, conductors, hospital assistants, etc.

ENTRANCE FEE for new and rejoining members is \$10/- and must accompany application.

ANNUAL SUBSCRIPTION RATES are as follows: —

Category A	During the calendar year in which eligibility for membership occurred and the 4 succeeding calendar years.	Subsequently.
<i>Ordinary Members employed as Managers, Assistant Managers etc. and normally resident in:</i>		
Malaya and Singapore	\$ 48	\$ 78
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<i>Ordinary Members employed as Executive Engineers, Estate Medical Officers, Research Staff etc., wherever resident</i>	\$ 48	\$ 48
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ANNOUNCEMENT

The Incorporated Society of Planters will hold a Symposium at the Kuala Lumpur Hilton from 8-10 November, 1973 on the subject of:—

Plantation Management in the Seventies

The Symposium will feature the presentation, in plenary session, of papers and panel discussions on the following:—

What is Estate Management?

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in Industrial Relations**

Management Application Techniques

**Multi-range Cost Analysis
of Field Equipment Operations**

Information Systems

**The Role of the Computer as it
may affect Estate Management**

Staff Improvement

The Future

Arrangements for the registration of participants will be announced in July.

Editorial:

Employers and Employees

Any consideration of the relationships between the two parties named in our heading must necessarily bring in a third, the go-between, which may be either a trade union or professional society.

By far the most important of the three is the employee because he represents by far the biggest sector and, without him, the other two cannot exist.

In the early years of this century it was widely realised that, as long as employees had to conduct any negotiations with employers on an individual basis, they would continue to get nowhere.

Therefore, amid slogans such as 'United We Stand, Divided We Fall', 'Unity is Strength' etc., trade unions were born, protected by enabling enactments which remain much the same today.

Employees paid their union or society a fixed weekly or monthly sum to act as their collective lawyer or solicitor and generally to represent them in negotiations with employers. In other words, collective bargaining had arrived.

Perhaps legislation governing trade unions should have moved with the times, which have changed a lot in the last seventy years, although the desiderata of employers and employees has not. The employer still wants first, profit and then, a contented work force while the employee wants security, a fair remuneration for the work performed and thirdly, job satisfaction.

The amount of labour unrest throughout the world suggests that the average employee is still far from achieving his basic aims, especially security. It can be said that the negotiating machinery as we know it has eliminated the despotic employer and gone some way to making remuneration fairer. But we are still a long way from really equitable profit-sharing and reasonable security from unjust dismissals.

The present British government is making valiant efforts to update the whole system, not without opposition particularly from the trade union sector which understandably jealously guards its outdated freedom from being actionable at law. Among the ideas put forward by the government is a scheme for 'worker directors' which seems to take a step further the equity participation by employees already well established in many of the more enlightened British Companies.

In a number of US Companies, there is a system of free share issues to higher executives which are surrendered if the employee leaves the Company.

Holden The Great Way to Move



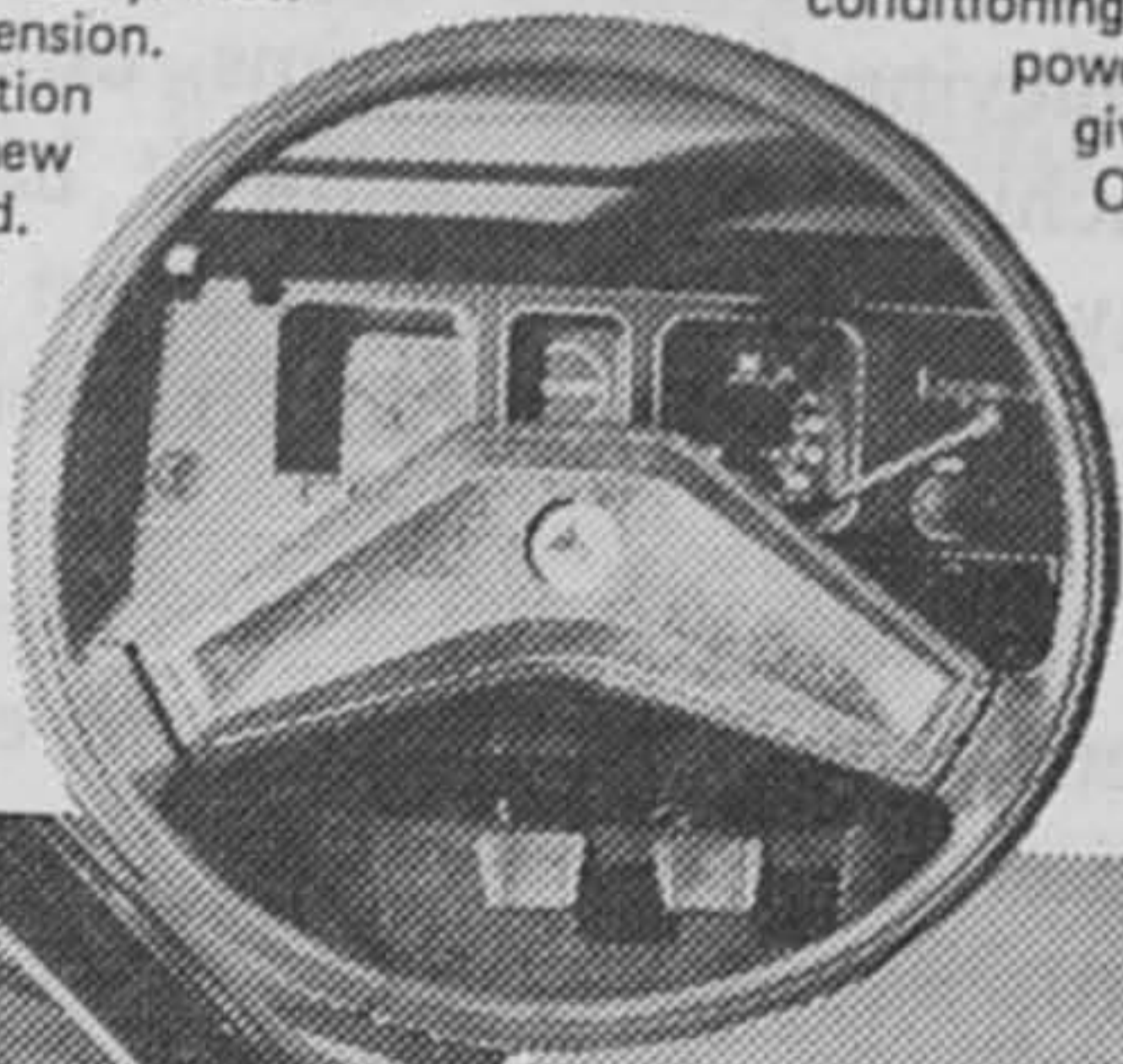
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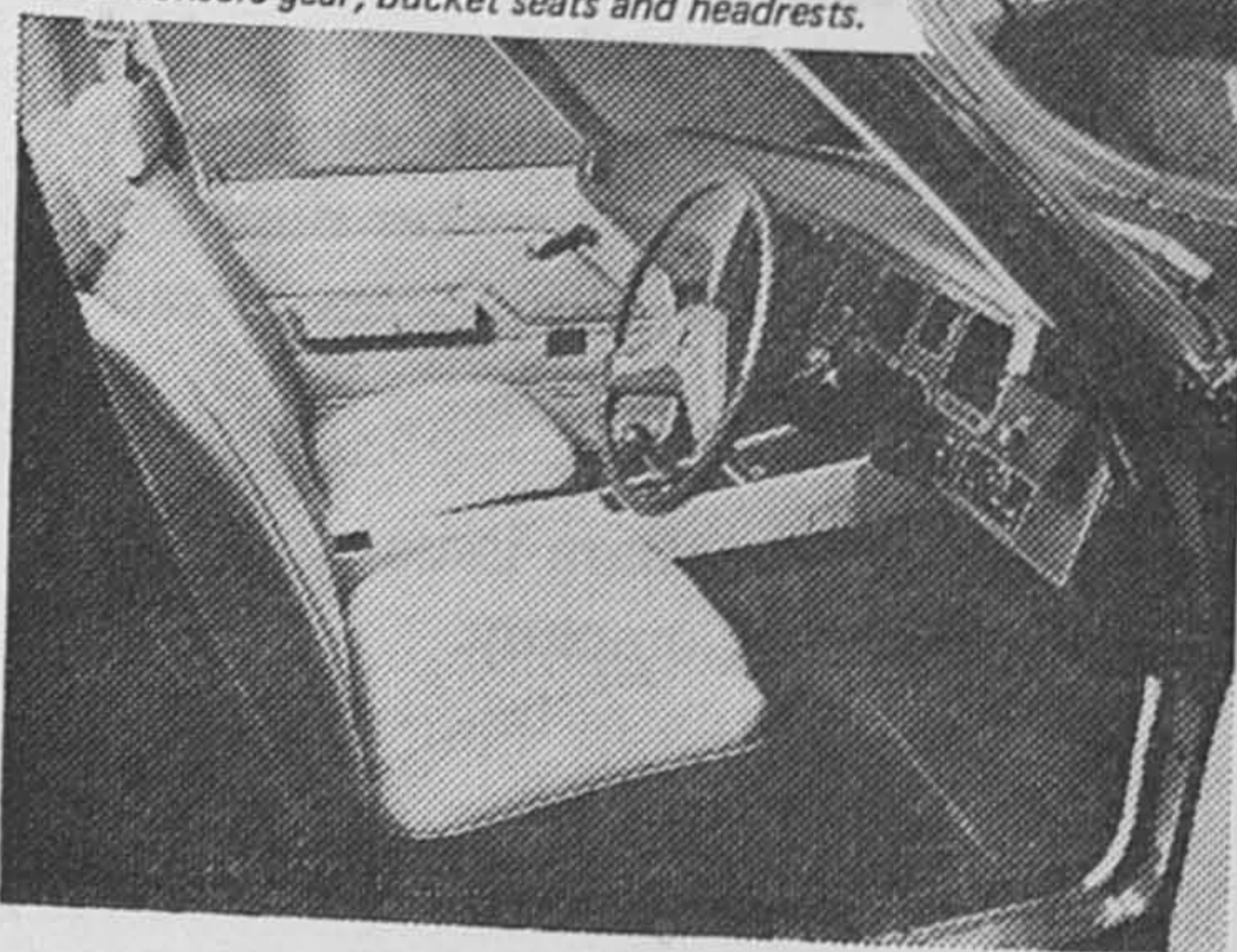
The new Holdens have already changed Australia's ideas about how a good car should look. Drive one . . . and you'll change your ideas about how a great car should ride. A five foot wide track and new big coil springs over each wheel see to that . . . but these are only two changes in the most changed Holdens in history. New styling. New front chassis design. New suspension. New seating comfort. New flow-thru ventilation system. New steering. New brakes. Exciting, new Kingswood, built with your family in mind. Luxurious new Monaro LS model for prestige two-door motoring. Australia's first long-wheelbase wagons. You've got to drive new Holden to believe it . . . and we've got them

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The superb new Kingswood with 4-speed floor console gear, bucket seats and headrests.

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In that the trade union movement, although perhaps ideally suited to the conditions of the first decade of this century, looks to be incapable of sorting out the employer/employee relationships of the seventies, the greater identity of the employee with the fortunes of his employer by being a shareholder, looks very promising.

The systems operated by these employee/shareholder Companies where so-called 'industrial action' is unknown, should be investigated and perhaps form the basis of a new order in commerce and industry.

Perhaps one day the law may require a stipulated percentage of a Company's equity to be reserved for issue to non-director employees. There are already employers who issue shares free in the form of bonus or reserve them for sale at par to employees.

If ever such a law came about, we wonder what the percentage of the equity reserved for employees would be; it would be possible to adduce equally cogent arguments for 49% or for 51%.

It bears thinking about.

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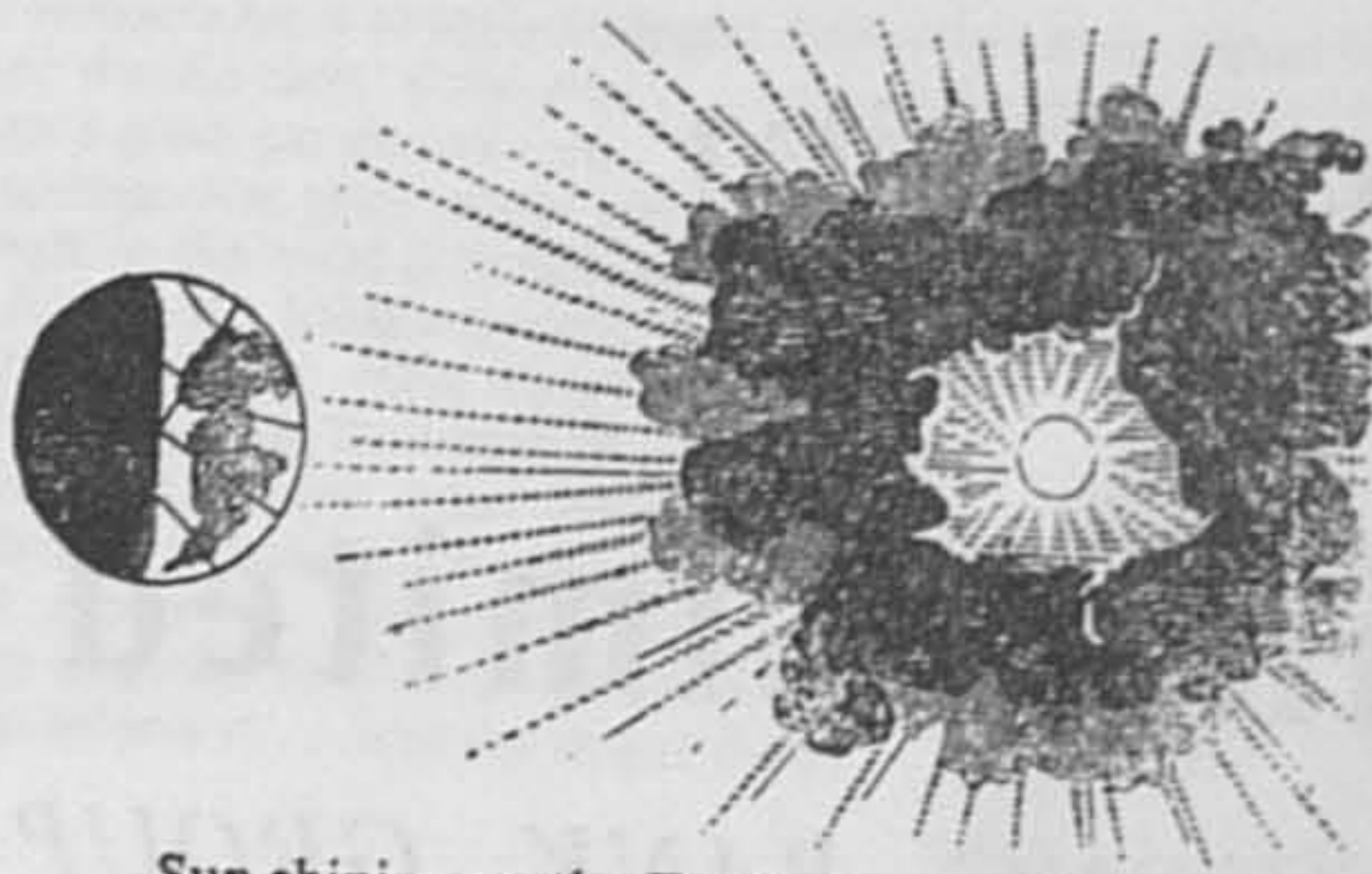
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Making rubber more attractive

B. J. Mainstone*

Under reasonable conditions cocoa carries ripe pods 2 years after planting and oil palm is harvested after 3½ years. Rubber, on the other hand, takes much longer before the crop begins to pay for the initial investments involved. An earlier maturity could greatly influence the decision as to whether to plant rubber. Further, if yields can be raised and tapping costs lowered the incentive to plant rubber would receive a further boost and there would be less of a tendency to establish rubber only where an alternative crop cannot be successfully grown.

Importance of the length of immaturity

Reduction of the immature period in the field can probably be effected by improved nursery techniques. This would involve extra expenditure, which can be seen in the costs to the end of the first year of replanting, for field planting costs are modified by the nursery techniques used.

With full mechanical clearing experience indicates that the time from commencement of clearing to tapping averages 5½ years when the Dunlop Polythene Bag Planting Technique (DPBT) is used (*see RRIM PB 63*). With the old method of brown budding in the field the period was 7½ years. In the DPBT the costs in the first year rose by some 40% but the sum of annual expenditures to maturity was reduced slightly. Allowing a 10% interest rate on capital per annum, the DPBT was 7% cheaper by the time of tapping.

A general picture is presented in *Table 1* to illustrate the above costs, and also to indicate the possible increase in expenditure which could occur if nursery techniques were further advanced so that within 4½ years of cessation of tapping, new trees could be opened up.

Table 1. Effect of replanting method on expenditure (\$M per hectare)

Technique (all with full mechanical clearing)	Years from cessation of tapping old stand to re-commence- ment of tapping	Expenditure up to 12 months from cessation of tapping old stand	Sum of annual expenditure up to commence- ment of tapping but excluding interest charges	Final total capital involvement up to commence- ment of tapping (interest rate 10% per annum)
Brown budding of seedlings in field	7½	1100	2800	4350
D P B T	5½	1550	2850	4050
Further advanced nursery techniques	4½	1800	2950	4050

* Dunlop Estates Berhad, Dunlop Research Centre, Batang Melaka

These figures relate to a range of soil conditions, and depict clearly how, when the immature period is reduced, the early expenditure can be considerably increased without increasing the final capital involvement at the time of commencing tapping. Most of this increase can be made available for improved and more advanced nursery techniques.

To obtain earlier tapping without any saving but also without extra capital involvement is attractive because it increases the acreage of an estate that can be under active exploitation at any time. This is demonstrated in *Table 2* where different lengths of tapping life are considered.

Table 2. Percentage of acreage in production

Period of non-productivity for replanting (years)	Length of tapping life (years)				
	15	20	25	30	Mean
7½	66	73	77	80	74
6½	70	75	79	82	77
5½	73	78	82	85	80
4½	77	82	85	87	83


Nursery techniques

Clearly those who do not take advantage of the currently available nursery techniques in a carefully considered manner will lose profit. The question really boils down to this: how much further can nursery approaches be developed in order to achieve even greater benefits?

Personal observations have indicated that when brown budded stumps are grown in polythene bags to approximately 4 ft before transferring to the field, at the time of commencement of tapping they have at least as good, if not a better root system than field brown-budded seedlings. On the other hand, with the bag size employed, such buddings can suffer transplanting shock. This can in part be overcome by watering in the field, but there may be other approaches that will prove far more successful and practical.

It is fairly simple to grow a plant to an advanced stage of development in a nursery. The problem that faces the planter when dealing with rubber is to transfer his plants to the field and maintain their growth unchecked. Restriction of transplanting shock can be obtained by reducing leaf area but as this is reduced, so is the photosynthetic capacity of the plant and hence its potential to maintain continuous growth. The aim of an advanced nursery technique must be to produce plants which are further developed than those presently used but which on transfer to the field suffer an absolute minimum of setback so that their growth may proceed virtually unchecked from the time of field planting.

A number of possible approaches for advanced nursery techniques are considered here.



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The painting characteristics have been improved in the new, red formulation of Ethrel Latex Stimulant, permitting easier application. As a result of this, a wider range of application rates, using standard application techniques, is now possible.

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and there has not been the slightest sign of any deleterious effects arising from its use.

Product Stability :

Ethrel Latex Stimulant is a ready-to-use formulation and is completely stable. The mixture contains 10% equivalent by weight as recommended by the RRIM.

High Yield Increments:

Sustained yield increases of 50–140% had been obtained from such clones as PB 86, Tjir.1, PR 107, RRIM 600 clonal seedlings. Consult your planting adviser about treating trees less than 15 years old with Ethrel Latex Stimulant.

Above-the-cut Applications:

It is sometimes highly profitable to apply Ethrel Latex Stimulant, monthly or bi-monthly, to the panel above the tapping cut. At present, recommendations for above-the-cut applications are limited to trees where the renewing bark will not again be tapped, or where existing bark is too thin to scrape. Consult your planting adviser for further information.

Easy to apply:

ETHREL Latex Stimulant is ready for brushing onto the scraped bark without further preparation.



Marking:

Equivalent to 2 months' bark consumption.

Scraping:

With renewed bark, scrape to the pink layer; with virgin bark, remove the extra (white) layer for quick penetration.

Applying:

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The spacing of plants in a nursery in their final stages before transplanting to the field ought to be such that there will not be any appreciable inter-tree competition which will force growth upwards. Tall spindly plants have a marked tendency to suffer from exposure. Furthermore, it is very important that the root systems are sufficiently developed within the soil taken to the field to support the plants' continued transpiration requirements for a considerable number of days after field planting. Thus the size of a bag or core to be employed can be of critical significance. Work by Dunlop with another plantation crop has indicated very clearly how the bag diameter is important for the development of girth, and it seems probable that depth can have a marked influence after transplanting into the field. This is because when adverse weather conditions obtain and surface soil in the field tends to dry, a well-developed root system below the dry soil will help to ensure that transpiration stresses do not occur. These considerations of spacing, diameter and depth of bag or soil core need full investigation.

The use of anti-transpirants can be of value if they do not result in overheating of leaves. Another aspect of development in the nursery is obviously related to the soil or soil mixture employed for the establishment of plants. What is required is a soil with good water-holding capacity but no tendency to waterlogging; that is, it should have reasonably good aeration. On transporting bags or cores to the field it should also bind well so that it will not break or crack and so strip the hairs off the rootlets or even break the smaller roots. The quality of soil is thus of great importance, and although soil mixtures employed in nursery work have been very carefully chosen there is probably room for further experimentation and the possibility that certain additives can be used to improve the handling characteristics during transport from the nursery and up to the stage of the plant being placed firmly into its planting hole.

Development along these lines should be rapid, and it ought to be practical to develop techniques in such a way that there can be a high degree of selection for plant vigour in the nursery. Such selection would occur largely on the strength of stock genetic variability and stock/scion compatibility, for with ideal cultural techniques in a nursery these factors will be the only ones limiting growth.

When techniques are sufficiently advanced it would seem that crown budding—*i.e.* the development of the three-part tree as has been discussed by P. K. Yoon at the 1972 RRIM Planters Conference—should be possible in the nursery. The value of the three-part tree should not be under-estimated. Many recommended clones have disquieting characteristics, but by a careful combination of clones for trunks and crowns it is possible to overcome in part the limitations of individual clones. Problems to be overcome relate in particular to wind damage and diseases. The reader should refer here to the paper of A. P. Ng *et al.* in the proceedings of the 1971 RRIM Planters' Conference.

Transport from nursery and field planting

The aim of these operations is to get plants into the field with an absolute minimum of disturbance and so the least chance of shock which could influence their establishment. Clearly, in order to have the best results the amount of jolting

and handling of the planting material with the soil around its roots should be minimal. This material to be put out into the field, being well developed, may very well weigh up to 50 kg per unit. To handle such material manually would appear rather impractical. Thus there is scope for mechanical loading for transport to the field and also mechanical unloading directly into the planting hole. In addition the type of transport employed should give a very smooth run and this could well indicate the use of semi-balloon or balloon tyres. These ideas should allow the mechanically-minded planter to carry out a certain amount of doodling in his office to develop the equipment that can do the job best.

A problem in planting is that it occurs during daylight hours, and accordingly the plants suffer the most severe climatic conditions possible during the period of transport from the nursery into the field. Accordingly, it is suggested that planting should occur during the hours of darkness and be completed for any particular day about 4 hours before sunrise. In this way sun exposure, which could be very critical during the first hours after planting, will not influence establishment. The critical period, as the writer sees it, will be that time when any damage to the root hairs is being made good in the field after planting. How long it takes for root hair to be replaced when mechanically separated from their rootlets could well be a subject for investigation in order to give a better appreciation of what ought to be done in field practice.

Density of planting

For optimum profitability it is obvious that it is the profit per hectare exploited which is of importance. The yield per acre and per tapper are naturally of great importance, and their significance depends very much upon labour costs and the price of rubber. As density decreases the yield per tree per tapping, girth increment and bark renewal improve. The yield per tapping goes up and the task size increases. There is also an indication developing from Dunlop work that as the density of planting decreases the response to nitrogen fertiliser increases during the first year of tapping. On the basis of results with the admittedly lightweight, wide branch spread atypical growth form of clone PB 5/51, it is concluded that improved profits will be obtained from lower-than-standard planting densities.

For the purpose of general information concerning the Dunlop Density Trial Table 3 and 4 are presented below. It is emphasised that we are dealing with clone PB 5/51, which is probably an extreme example of clones which can benefit from wide spacing. Spacing with other clones requires further investigation. However, it is the writer's contention that nursery costs can be significantly reduced if the number of plants per hectare is lower than that which has become the general range in this country. The writer is inclined to the view which, he would stress is his own, that in the future the greatest profitabilities will probably come from densities below those currently employed on estates.

Nutrition

As more highly developed plants are transferred from the nursery to the field their nutrition will become more important as the applications of fertiliser during

Table 3. Yield from Dunlop Planting Density Trial with PB 5/51 (kg/ha)

Year	Full year of tapping	Stand per hectare			
		346	296	247	196
1967*	—	333	328	296	265
1968	1st	1246	1230	1158	1143
1969	2nd	1379	1320	1259	1223
1970	3rd	1642	1599	1479	1446
1971	4th	1719	1635	1489	1425
1972†	5th	1747	1632	1474	1434

* Tapping commenced in July 1967

† Non-simultaneous turn-over from panel A to B commenced in July 1972

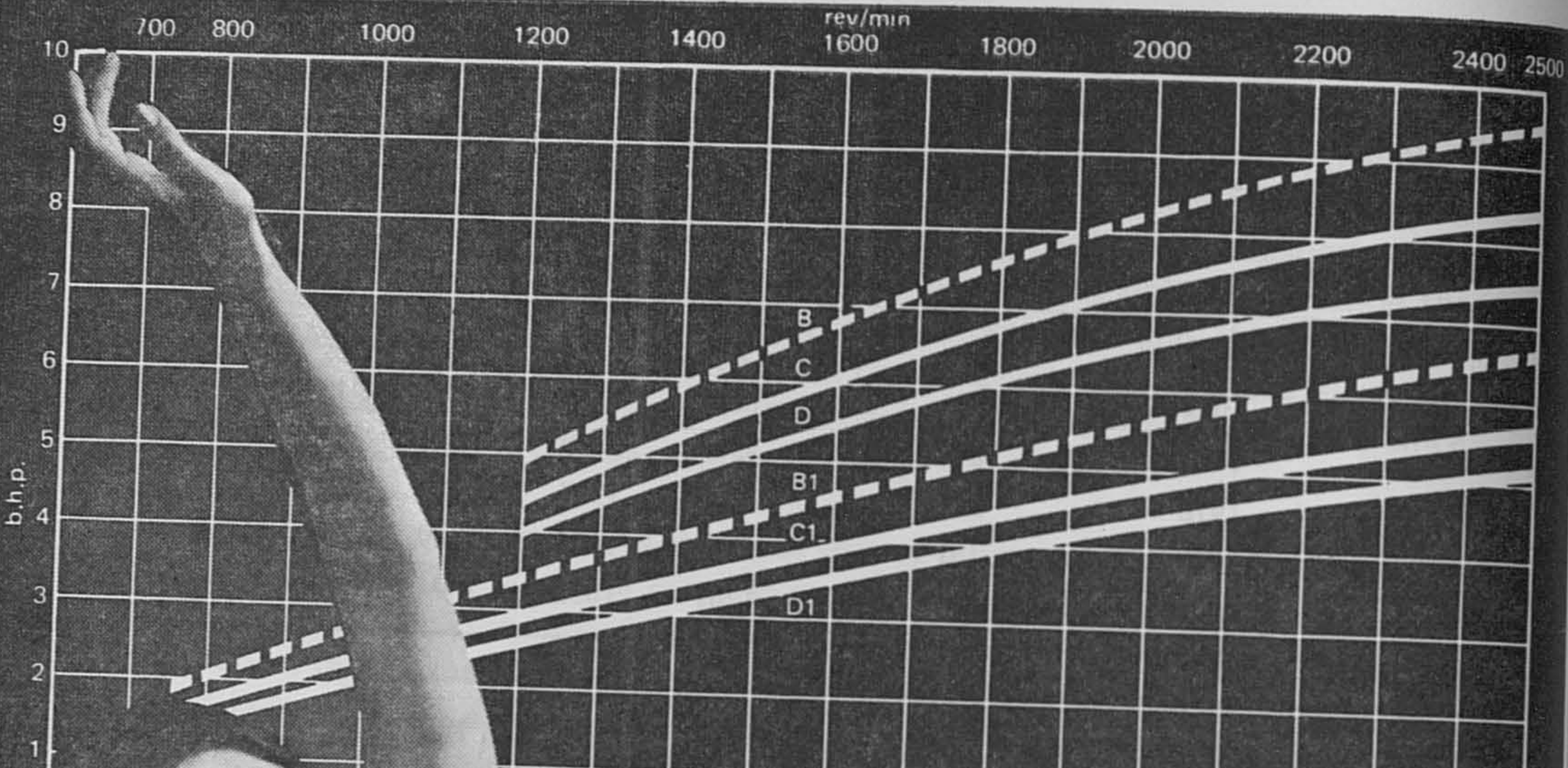
Table 4. Tank size and growth data from Dunlop Planting Density Trial

Aspect	Stand per hectare			
	346	296	247	196
Theoretical tank size:				
Number of trees	625	600	570	536
Hectare	1.80	2.03	2.31	2.84
Trunk cross-sectional area in January 1972 (cm ²)	314	339	356	388
Bark renewal (3 yr) in August 1972 (mm)	6.2	6.5	6.7	7.1

the first year or so in the field will have to be geared to root systems which have a small spread in relation to more conventional types of planting. It has been already observed with the planting of established buddings into the field that at the time of branch initiation there is a very great demand for phosphorus and potassium when compared to that which would normally be required with field buddings of a similar degree of development. Although in the nursery stage there may be a saving in fertiliser usage this will have to be made up after field planting.

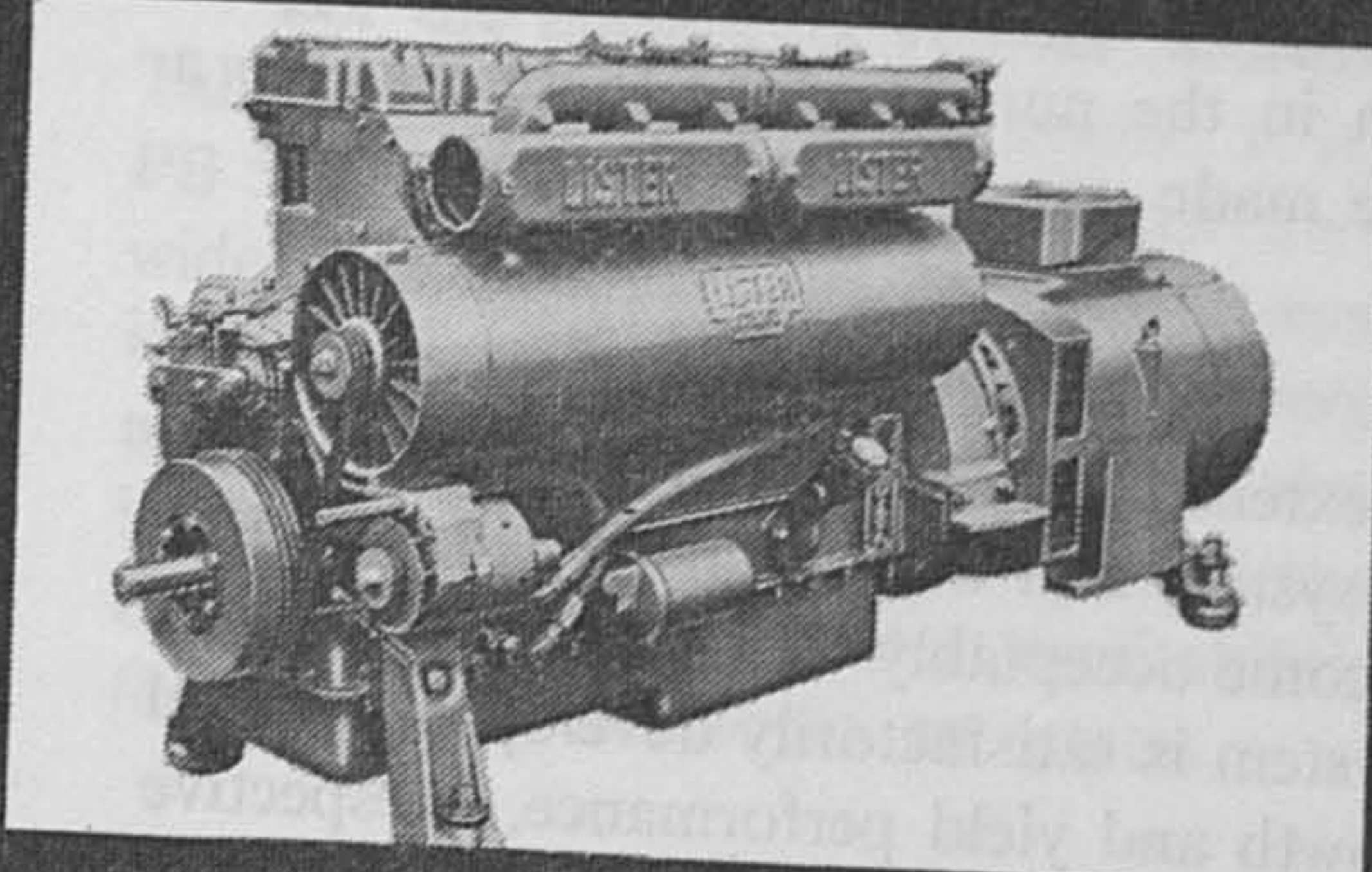
Limitations to nursery development

The limitations probably relate to the extent to which trees can be allowed to start life in the field with a restricted root system and the extent to which, before tapping commences, the root system can become acceptably well developed. Unless at the commencement of tapping the root system is satisfactorily developed it would seem logical to suppose that subsequent growth and yield performance, irrespective of fertilisation, will not come up to expectation. Accordingly, the overall aspects of field maintenance, and not just fertilisation, must be at a very high standard when advanced planting material goes to the field. It remains to be seen at what extremes of advanced development trees can be successfully taken to the field.



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Exploitation

Chapters could be and have been written on the subject of exploitation. Some writers are optimistic in the forecast of rubber yields that might be obtained. With a density of trees in tapping of up to 334 per hectare by the tenth year, C.S. Ng at the 1972 RRIM Planters' Conference projected an average yield per hectare over a 30-year exploitation period for RRIM 600 of 2272 kg. Ethrel stimulation occurred four times per year from the eleventh year in tapping. This usage of Ethrel after 11 years of tapping is certainly considered safe. However, the writer will present evidence at the 1973 RRIM Planters' Conference to show that, as long as greed is kept in check, then Ethrel stimulation is probably quite practicable using novel tapping systems of reduced intensity in reasonably developed areas after only 3 years of tapping. Such exploitation would be aimed at moderately increasing the profitability per hectare without involving large increases in yield per hectare.

Whether rubber is tapped for 10, 15 or 25 or any other number of years will depend very much upon the calculated profitability in relation to maintained continuation of tapping or the introduction of replanting. The point, however, should be emphasised again that with low density planting better growth in girth and bark renewal can be obtained, and hence the projected life for high levels of production ought to be greater than with more normal densities.

SUMMARY AND CONCLUSIONS

This article is not intended to be a scientific paper, nor is it intended to tell the reader how to make rubber more attractive as a plantation crop. Its aim is to stir up ideas which will be projected into action in the form of investigations. It is felt that investigations in the early stages should be directed towards developing nursery techniques and these should allow nursery thinning. It has been emphasised, and presented as a warning, that although plants can be developed to an advanced stage within the nursery, it is essential for satisfactory overall estate performance to be possible to transplant them into the field without any significant setbacks. Maintained growth after field planting is important. This will involve not only the methods of transport to and planting into the field but also high levels of maintenance until the time of tapping.

Comment has been made upon the importance of density, especially in relation to nursery costings. Exploitation has only very briefly been touched upon, but comment was made that investigations into the use of Ethrel at a much earlier stage than is now acceptable as a general plantation level, look to be very promising. Taken all in all the author considers that rubber plantings are not gradually in the process of going the same way that the Dodo has already travelled.

Acknowledgements. The writer thanks Dunlop Estates Berhad for permission to present this article. He acknowledges that certain of the observations presented are controversial, and trusts that the reader will appreciate this.

Adapted from the Johore Planters' Association Annual Report, 1972, and published with their permission and that of the author and Dunlop Estates Berhad.

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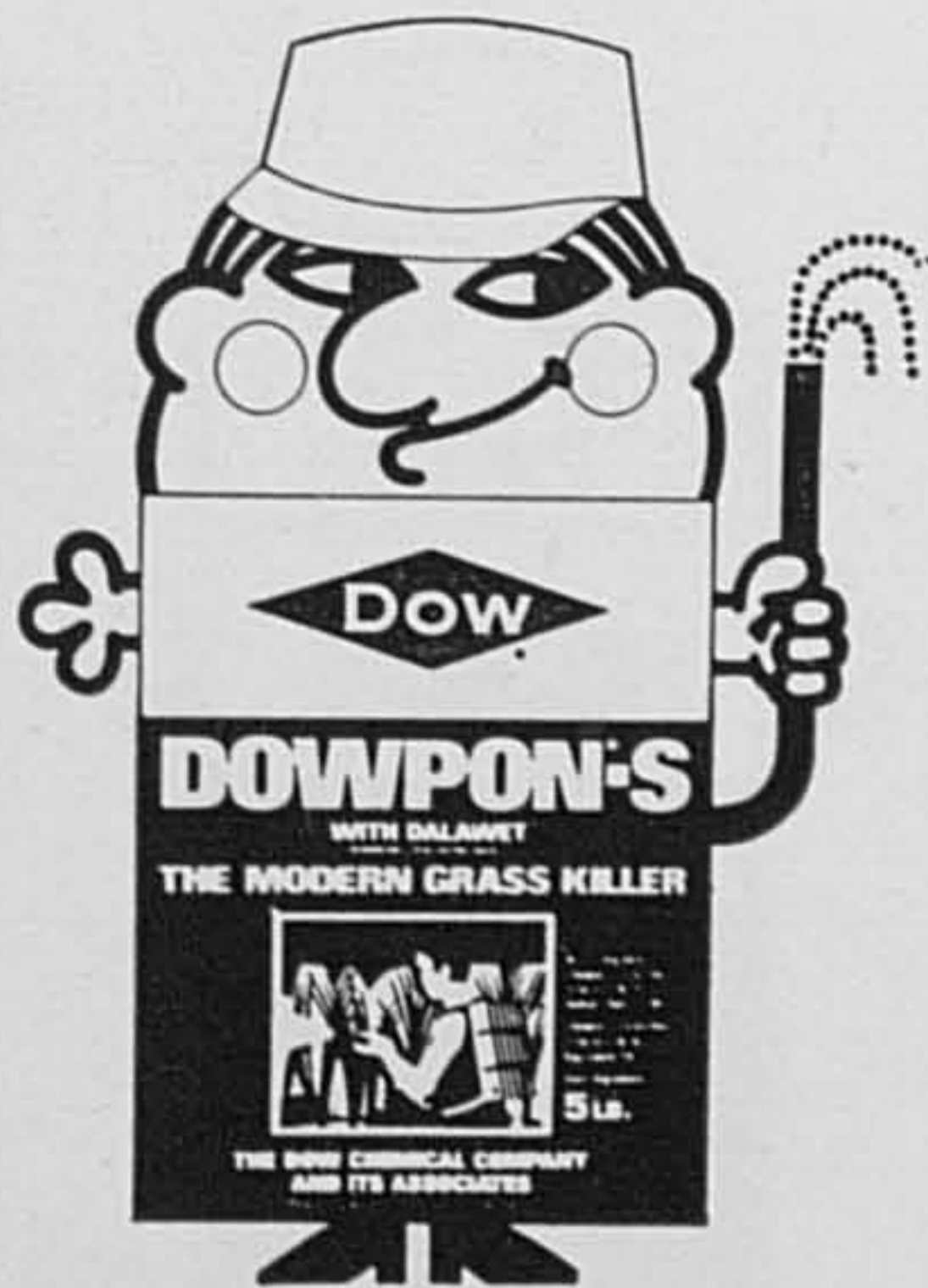
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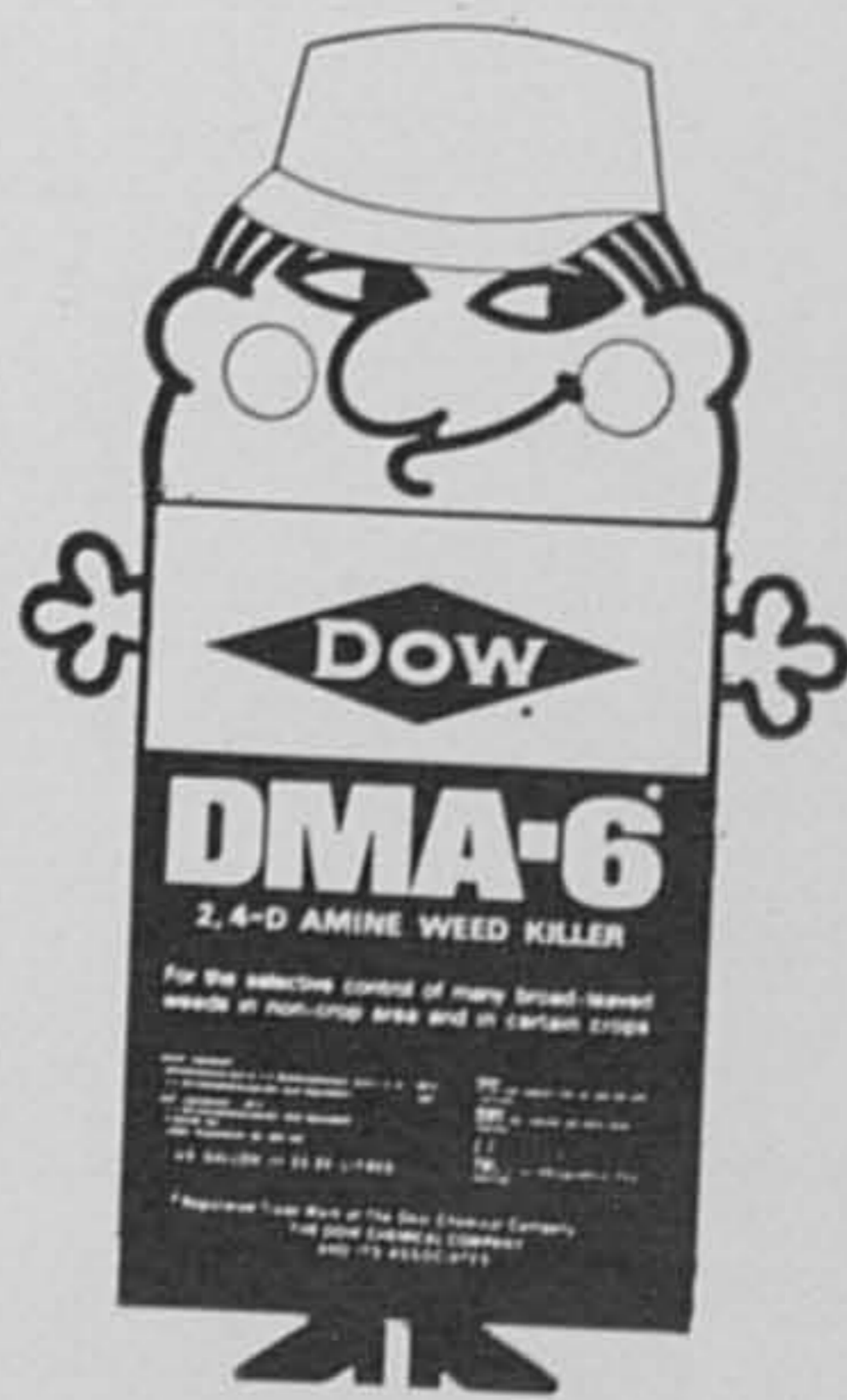


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Chinta: a new tropical sweet corn

K. M. GRAHAM and T. C. YAP*

INTRODUCTION

Although boiled corn-on-the-cob (*jagung*) is a popular vegetable in markets and roadside stalls in Malaysia, the variety used for this purpose is the starchy type. It is usually harvested rather late and is hard to chew. It may take one-half to one hour of boiling to soften.

Sweet corn, which has a soft, sweet kernel when it is at the eating stage, and a shrunken kernel when fully mature and dry, is relatively unknown here. Varieties imported from America, Australia and New Zealand or other temperate countries do not grow well here because they are not adapted to temperatures and day lengths of the tropics, and they are also quite susceptible to disease.

A breeding programme to improve sweet corn for local conditions was started by the Plant Science Division of the Faculty in 1968. It also served the purpose of training students who were specializing in plant breeding in the techniques of maize breeding.

DEVELOPMENT

There are four varieties in the genetic background of Chinta: Metro, Antigua, Hawaiian Sugar and Local Flint. Metro is a synthetic variety, produced by the crossing of several inbred lines with a good general combining ability, and Antigua is an open-pollinated variety. They are both starchy varieties from Guatemala, Central America. Hawaiian Sugar is a synthetic sweet corn variety from Hawaii, and Local Flint is an open-pollinated starchy variety widely grown in Malaysia. The scheme of crossing and selection is shown in *Fig. 1*.

Hawaiian Sugar was the female parent in crosses with Metro, Antigua and Local Flint as male parents. The first generation (C_1) was allowed to cross-pollinate or open-pollinate. At harvest, all the sugary kernels were selected and the second generation (C_2) was grown from them. It was also allowed to open-pollinate at random and all the seeds were saved.

Selection commenced in the C_3 and continued for five generations. Seed was saved from plants of intermediate height, with multiple ears about 6-7 in. in length when husked, with creamy yellow kernels, tight husks, and some resistance to leaf disease. The eighth generation (C_8) produced the seed of Chinta.

Unlike self-pollinated species, like rice or brinjal, sweet corn and starchy maize are cross- or open-pollinated. Therefore individuals in the population are not genetically the same. The biological variation of a cross-pollinated species is due

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partly to genetic factors and partly to the environment, whereas in self-pollinated species, the variation is due mainly to the environment.

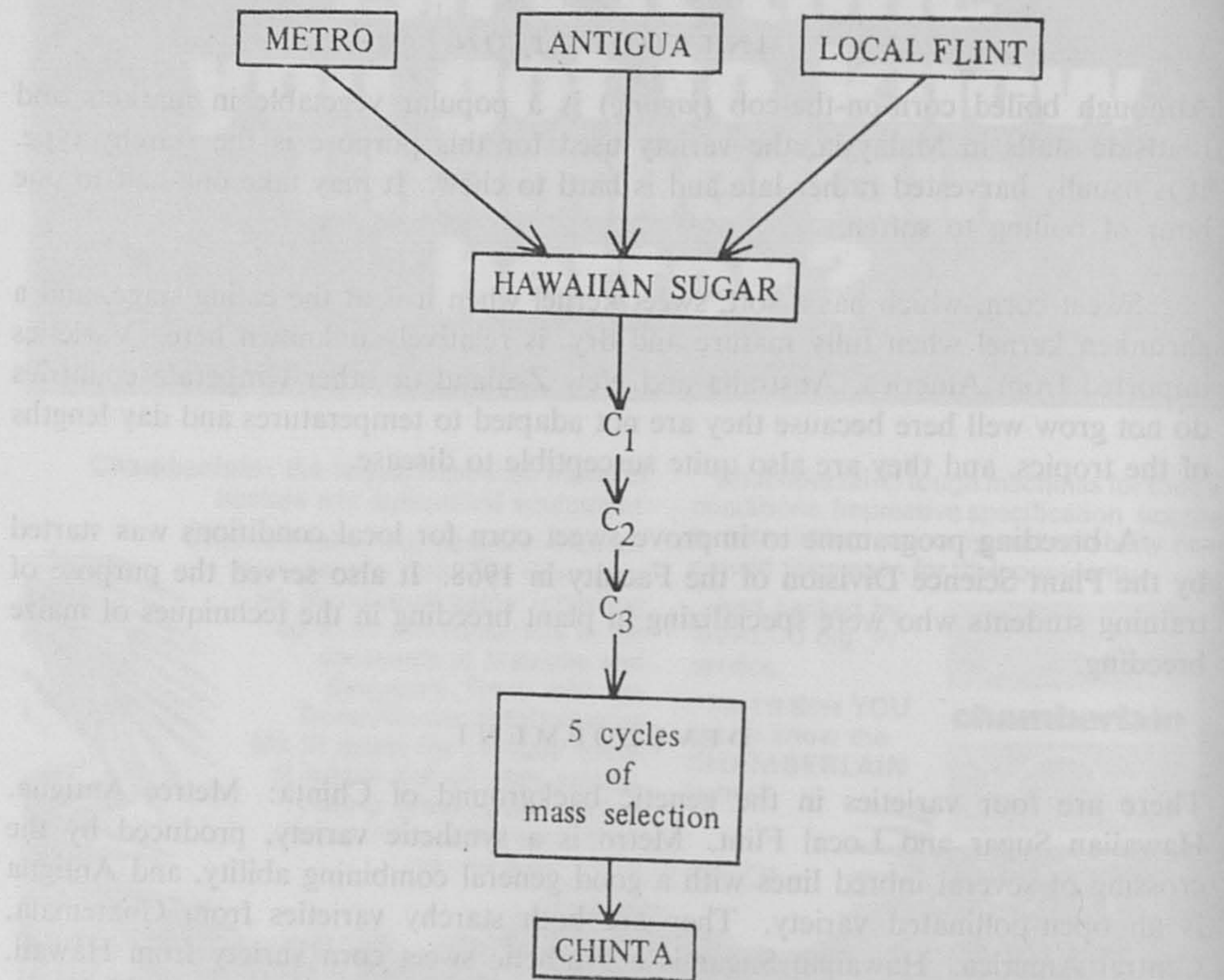


Fig. 1 Scheme of crossing and selecting sweet corn varieties to produce 'Chinta'

Because Chinta originated from a population of several crosses of different varieties, it is a composite variety. Like many other cross-pollinated crops, it shows relatively more variation for many of the agronomic characters such as plant height or ear height, compared to those of self-pollinated crops. Nevertheless, it shows the features of a variety. Moreover, with regard to sweetness and quality, it is reasonably uniform.

One of the most important precautions of handling cross-pollinated crop varieties is to maintain heterozygosity in order to avoid inbreeding, which causes loss of vigour. During the five generations of mass selection preceding the establishment of Chinta, no loss of vigour was observed.

DESCRIPTION

Plant type

The average height is 6–7 ft, but under conditions of very high fertility it may reach 9 ft or more. The height of the first ear is about 2–3 ft from the ground. Two ears per plant are quite common, and sometimes there may be three ears per plant.

Ear type

The average length is 10 in. or 5–7 in. with the husks removed. Single ears on plants tend to be longer than double ears. The number of rows of kernels per ear is 12–16. Husked ears weigh about $\frac{1}{3}$ – $\frac{1}{2}$ lb each. The kernel colour is light yellow. The number of kernels per ear varies between 300 and 600 depending upon the size of the ear.

Maturity

The time from sowing to flowering is about 52 days, and to harvest for fresh vegetable, about 70–75 days. Seed matures about 3 weeks afterwards, *i.e.* in about 90–95 days from sowing.

Disease and pest reactions

Chinta is moderately resistant to leaf spot or blight (*Helminthosporium maydis*), exhibiting a reading of 2.7 on a scale where 1 = very resistant and 5 = very susceptible. It is susceptible to rust (*Puccinia polysora*) and to sheath rot (*Rhizoctonia sp.*) when given excessive nitrogen under very moist conditions.

It is susceptible to stem borers (*Ostrinia salientalis*), aphids (*Rhopalosiphum spp.*) and to cutworms.

Yield

Under average conditions Chinta will yield 6000–8000 lb of fresh ears per acre per crop, at a planting distance of 3 ft between the rows and 1 ft between plants in the row. The number of ears per acre should be 12 000–16 000, but under very favourable conditions the yield could be higher. At wider spacings (2 ft × 2 ft) the yield is lower, although the ears maybe larger. The yield of sweet corn is never as high as starchy maize like Metro.

If water supply is not limiting or excessive and soil fertility is maintained, it should be possible to grow three crops per year on the same land.

CULTURE

Soils

Like maize, sweet corn prefers dark alluvial well-drained soils. It does not do well on red laterite and gravelly hill soils, and is not well adapted to peat. It is very sensitive to both lack of water and bad drainage. If it is grown on red hill soils, then lime must be added to adjust the acidity. Furthermore, it may suffer from acute phosphate deficiency.

Sowing

The following table gives the quantity of seed required to plant one acre of land with one seed per point at three popular planting distances:

Spacing	lb/acre
2 ft × 2 ft	4
3 ft × 1 ft	5½
30 in. × 9 in.	9

Trials in Selangor have indicated that the optimum planting distance is 3 ft between rows and 1 ft between plants in the row. This spacing is also convenient for machine planting and cultivation.

If fresh seed is used, it may be planted at the rate of one seed per point or hole. If the seed has been stored for some time at a high temperature, it should be planted at the rate of two seeds per point and the estimates of quantities of seeds required per acre (above) should be doubled. If two seedlings emerge, one may be discarded a week or two later.

Seed should be sown about ½–1 in. deep in well-prepared soil. It should not be planted on ridges unless the rainfall is very heavy. If the soil is dry at planting time, it should be planted in a furrow or trench that will catch any available moisture. After the plants reach a height of about 2 ft, the soil may be hilled up around the base of the plants to conserve moisture, prevent lodging and protect secondary roots emerging above the soil surface. These hills may also provide drainage during very rainy periods.

Seed of Chinta has been treated with Sevin, Malathion and Captan dusts to protect them against storage pests and fungi. Although the chemicals are not particularly dangerous, the seeds should not be eaten by children or given to animals.

Isolation

Chinta must not be planted close to Metro, Guatemala or Local Flint because pollen from the starchy maize will fertilize the sweet corn and starchy kernels will develop. It should be isolated from the other varieties by at least 150 yards. It may be planted close to these varieties provided that the planting date is 2–3 weeks before or after the planting date of the starchy maize. Then they will not flower at the same time.

Fertilizer

If Chinta is to be planted on very acid soil (pH 4.0–5.0), at least 1 ton per acre of agricultural lime (magnesium lime) should be broadcast and cultivated into the soil at least 2 weeks before planting. If the soil is not so acid (pH 5.0–6.0), half a ton of lime may be sufficient.

At planting, a complete fertilizer should be applied, with phosphate in a readily available form. Double superphosphate acts more quickly than rock phosphate.

The rate of application depends upon the soil type and the same recommendations as for maize should be followed. On alluvial soils, suitable for maize cultivation, 150–200 lb per acre of a complete fertilizer (15% N, 15% P₂O₅, 15% K₂O + trace elements) may be applied in two applications: the first at planting time as side bands at seed depth or slightly below, and the second about 4 weeks later. If seedlings develop severe phosphate deficiency, manifested by a purpling of the leaves, it may be corrected by an application of double superphosphate at 200 lb per acre.

On soils that have been cropped continuously to the extent that they are very low in organic matter, well-rotted cow manure, chicken manure or organic fertilizer should be applied.

Soils that have recently been cleared of jungle, rubber or oil palm by burning will have plenty of ashes. These should be broadcast evenly over the area to be planted and will constitute a good source of potash.

It is impossible to make a general recommendation for all the soil types of Malaysia. The advice of the Department of Agriculture should be sought, based upon submission of soil samples.

Disease and pest control

Although Chinta is susceptible to rust, it is not economical to spray the crop with fungicide. The disease appears rather late and is unlikely to reduce the yield of vegetable ears by very much. Sheath rot may be reduced by avoiding excessive nitrogen and close spacing, and by thorough weeding to promote air movement.

Stem borers may be controlled by spraying thoroughly with BHC* (wetttable powder) at the rate of 2 oz/3 gallons water. The first spray should be 4 weeks after sowing, and the second and third at 6 and 8 weeks respectively. The spray should be directed at the centres of the young plants, where the leaves are developing. The last spray should be directed at the tassels and developing ears, which are a point of entry for the larvae. There is no point in spraying after the damage becomes visible by the presence of bore holes in the cob and of plants that have collapsed. Also, no spray should be applied within 10 days of harvest.

If aphids appear, usually in the inner whorl of leaves of young plants, they may be controlled by spraying with Malathion (2 oz/3 gallons) or Rogor (2 oz/3 gallons). Either of these chemicals may also be combined in the BHC spray for borer control at the rate of 2 oz of Malathion or Rogor to 2 oz of BHC.

Cutworms, which may attack plants in seedling and mature stages, may be controlled by spraying with Sevin 58 as recommended by the manufacturer.

* Where BHC appears ineffective, try Benzathion, Carbaryl, Orthene or Dipterex at rates recommended by the manufacturers.

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Harvesting

Chinta will be ready for harvest as a vegetable about 70–75 days after sowing, or about 3 weeks after flowering. It should be harvested when the silks at the ends of the ears turn completely dry and brown but the husks are still green. Ears may be inspected by pulling down 2–3 in. of husk. If there are gaps between the rows of kernels, the ears are not mature. If the rows are tightly packed, the ears are ready for harvest. If the kernels have begun to shrink, then the ear is over-mature. After 75 days, the amount of sweetness is sharply reduced as it tends to change into starch. Harvesting should therefore not proceed beyond about 78 days.

COOKING AND PROCESSING

Sweet corn may be prepared in several ways. It may be boiled with the husks on and with the top inch of the ear cut off, for 10 min, or with the husks off for 5 min. It is best to heat the water to boiling first, then add a little salt, and put the ears in the water. It may also be cooked by steaming in a steam cooker for 20 min. It tastes best when eaten hot, but it is still palatable when allowed to cool. It should be consumed as soon as possible after harvest, because the ears dry out after they have been taken off the plants, and the sugars change into starch at high storage temperatures.

SEED SOURCE

Seed can be purchased from the Faculty of Agriculture, University of Malaya, Kuala Lumpur, in 2 oz, 4 oz, 8 oz and 1 lb packages. Growers are advised not to save their own seed because of the danger of contamination from starchy maize. Also, saving seed from a very small number of plants, or from single ears, may result in inbreeding depression and loss of vigour.

Acknowledgements. The authors wish to express their appreciation to Chang Siew Hoong, Lee Chong Hee and Soh Aik Chin for co-operation in making the initial crosses and assistance in selection and harvesting, to Teo Ban Kiat and Tong San for organizing the cultivation of the various generations, to Liew Kon Wui for disease reading, to Gurchan Singh for pest control recommendations, to S. Vythilingam for organizing seed storage and packaging, to B.H. Webb for technical assistance in seed production, to Ch'ng Guan Choo for canning trials and the entire staff of the Faculty for their enthusiastic services on taste panels.

Grateful thanks are also due to Dr Charles Moore, Rockefeller Foundation, Kasetsart University, Bangken, Thailand, for providing seed of Antigua and Hawaiian Sugar.

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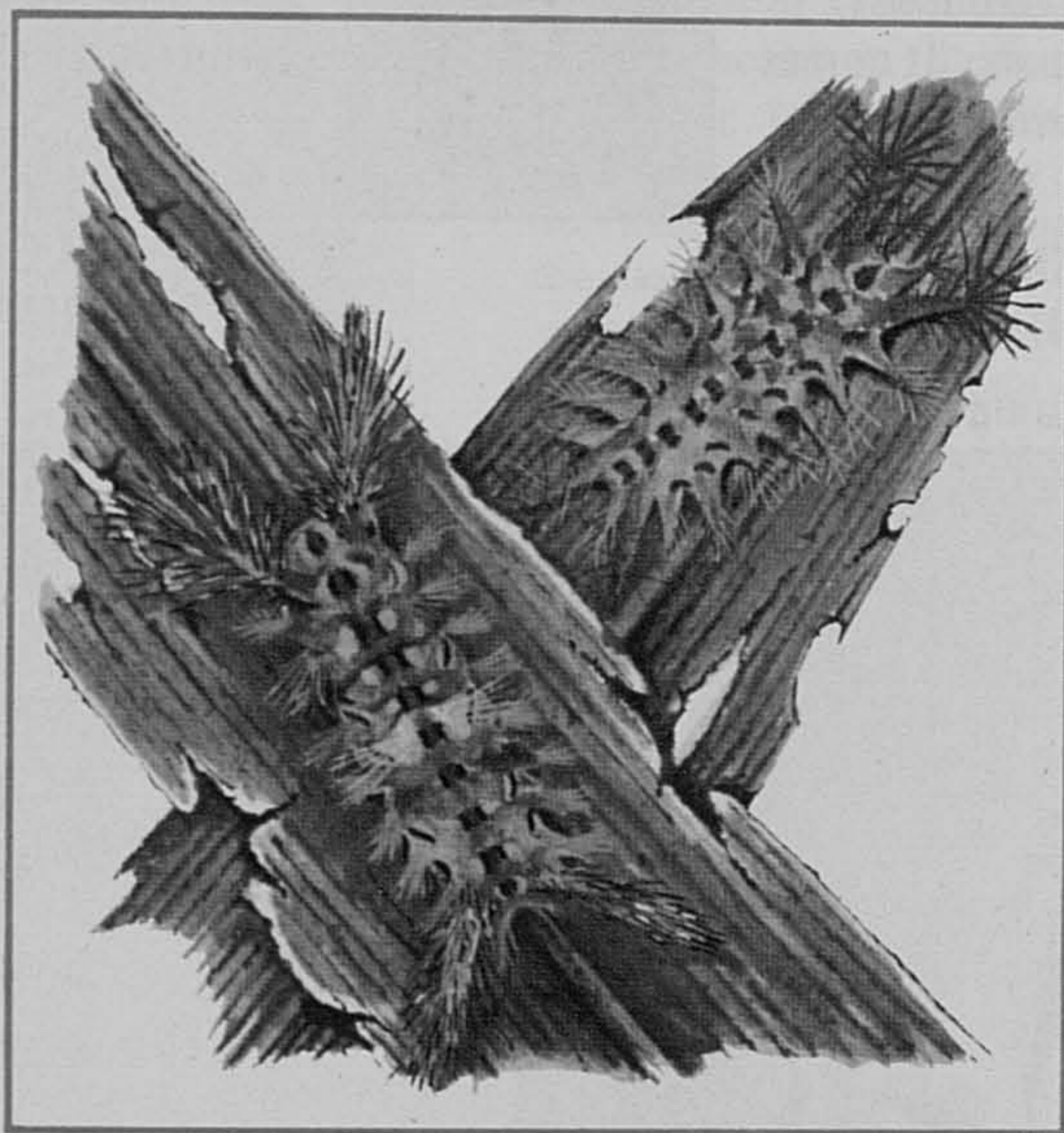
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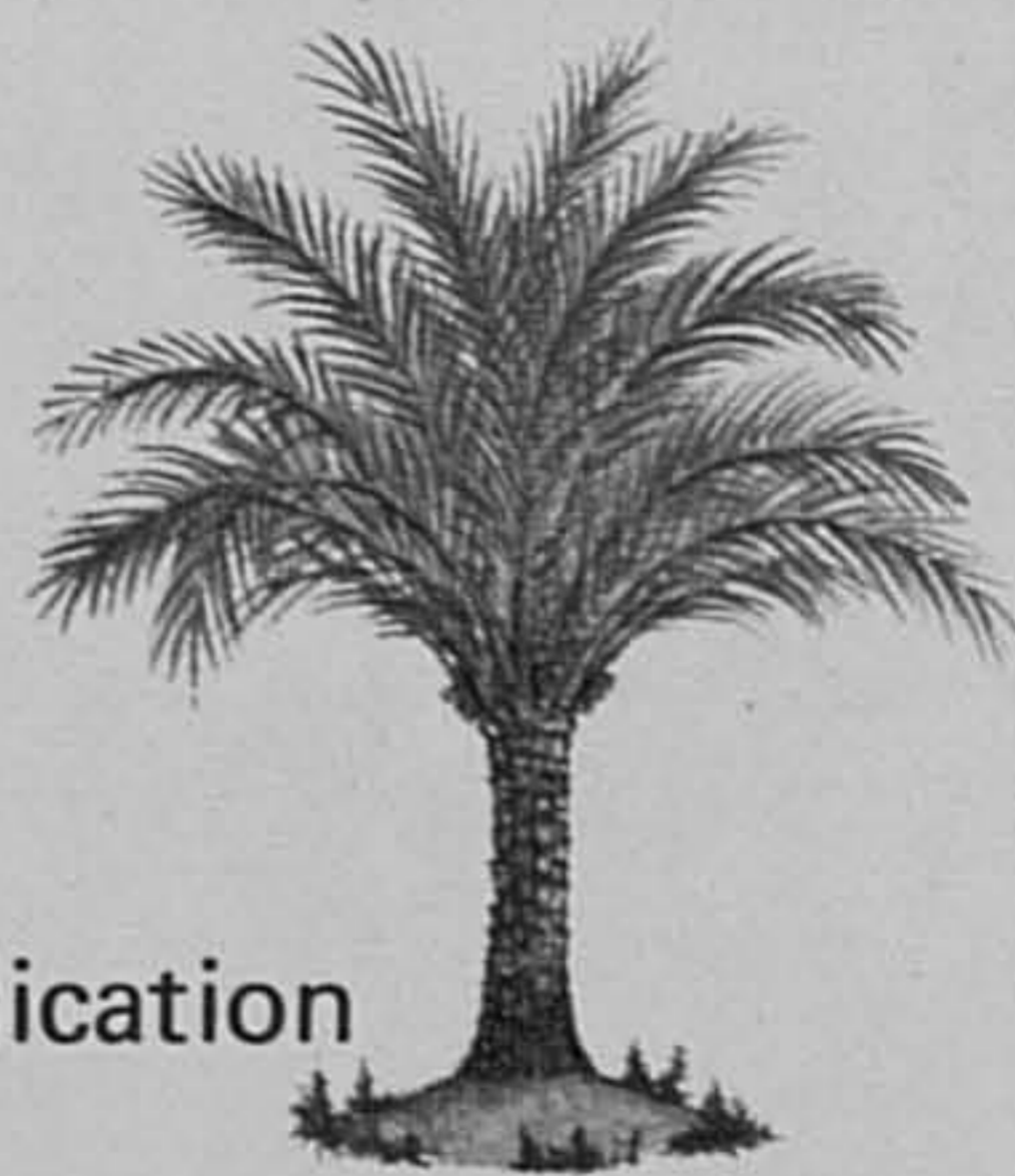


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*Planter Interview:***R L Wastie**

Born in 1935, Dr Wastie studied at the universities of Oxford (where he obtained first class honours in Botany) and Cambridge, graduating from the latter university with a Ph.D. in plant pathology in 1961. He joined the Rubber Research Institute of Malaya in the same year, and after an initial two years studying the occurrence of mycorrhiza in *Hevea* roots he has been mainly engaged on research into leaf diseases. He has developed techniques of field screening against *Oidium* and *Gloeosporium*, and has worked on the epidemiology and control of leaf diseases in general as well as on pink disease. He is the author or joint author of over twenty papers on *Hevea*, and many anonymous articles in the *Planters' Bulletin*.

Dr Wastie is a Fellow of the Incorporated Society of Planters, and his services to the Society include several years as technical editor of *The Planter* and the joint editorship of the proceedings of the Society's last three annual conferences. He is an organist and choir conductor, an erstwhile beekeeper, as well as the owner of an MG sports car of violent hue and an ancient bicycle, neither of which, he regrets to say, he will be able to take with him on his forthcoming departure.

In your 12 years with the RRIM what would you say are the most significant developments in the field of Hevea pathology?

As far as a tree crop is concerned 12 years is really a rather short time, but nevertheless I think the single most important development in the last decade is the fact that the control of root disease has been revolutionised. At about the time I arrived a collar protectant for white root disease, based on PCNB, was in the final stages of development. It was first offered to the industry in 1963, and is now extensively used. It prevents invasion of the collar by *Fomes* (*Rigidoporus lignosus*), and, as I say, has revolutionised the treatment of white root disease. In more recent years a collar protectant against *Ganoderma* has been introduced, and we are now I hope about to see the fruits of recent work—in which I have played no part incidentally—in that a dressing effective against all three major diseases looks to be just around the corner.

Are the collar protectant dressings suitable as a prophylactic treatment if you are planting a stump?

Generally speaking no, partly because dressings may tend to inhibit the development of young roots. A second very good reason why it is not really appropriate to apply the treatment before planting is that root disease does not usually infect

a young tree until the lateral roots have run out some distance and picked up a source of infection; this may well take 6–12 months or more to occur, by which time it is likely that many of the potential sources of infection will have decayed. So you would be treating rubber stumps which didn't need to be treated.

While we're on the subject of root diseases what would be your advice regarding the clearing of a root disease infected area for replanting?

Well, quite honestly there is nothing better than the well-established technique of mechanical clearing; it gets rid of all the root material in the soil, and after all you must bear in mind that it is only the root material in the soil which is going to cause an infection in the young stand. If you pull this out with suitable equipment and leave it on the surface—or better still, if you allow cover plants to grow over it so that it decays more rapidly—then root disease should not be a substantial problem in your replant.

Are there any developments other than those dealing with the control of root disease?

Yes; I think we have a much better understanding of the meteorological and other factors favouring infection by leaf diseases, as well as of the damage they cause, than we had a decade or so ago. I think that in the past one tended to look upon leaf diseases as more of a nuisance than anything else. But in fact research over the years has shown that they can have an appreciable effect on the growth and even on the yield of the tree, and we now know much more about the distribution of individual leaf diseases and which clones are most severely affected. Clones can now be recommended which are more suitable for each region of the country as far as the disease pattern of each area is concerned.

Have you any empirical evidence of any particular nutrient levels being directly associated with greater or lesser disease incidence?

No, I don't think so. We have not been able to discover a direct connection between disease incidence and nutrient levels. I think the effect is more indirect; for instance, in a tree which is extremely deficient in nutrients the leaves don't grow to such a large size, therefore they tend to mature more quickly and the period during which they are susceptible is thus somewhat reduced. So there is a contrary effect to what you might expect. Nevertheless there are very important effects of nutrient levels on disease. A tree which is deficient in nutrients is going to take much longer to recover from the effects of leaf disease, whereas one which is healthy and vigorous can put forth new shoots more rapidly and thereby continue to retain some canopy.

Would you say that our relatively new awareness of manuring requirements for mature rubber will lead to a lower disease incidence?

The answer to this one really follows on from what we've just been saying. That is, if you keep your tree at an optimum nutrient level it is much more likely

to be able to shake off the effects of leaf disease. This is an important point also, because recent research has shown that if you apply a supplementary dose of nitrogen to your trees just before refoliation the leaves will come back slightly sooner, more vigorously and therefore more likely to avoid the worst effects of any secondary leaf fall which might otherwise have affected them. Of course with clones of undue susceptibility to wind damage you can't do this, but with certain clones, such as PB 5/51, which is windfast and yet very susceptible to *Oidium*, this technique does in fact work quite well.

Are there any diseases of modern Hevea clones to which pre-war cultivars were not susceptible?

By and large no, because all the diseases that we have here at the moment, with the exception of *Phytophthora* leaf fall, were all here before the war. However, I think the disease picture has changed in the last 15–20 years in so far as some modern clones appear to have been developed without taking their disease resistance or susceptibility sufficiently into consideration. Of course with hindsight it is easy to say this, but there appears to me to have been a tendency to go all out for yield, and that disease resistance has to some extent been overlooked. Thus RRIM 600 is an excellent clone in most respects, but is unfortunately rather susceptible to panel diseases and to *Phytophthora* leaf fall (although the latter fact could not possibly have been foreseen as the disease only appeared in this country a few years ago). Similarly PB 5/51, which is also a Class I recommendation, is very susceptible to *Oidium*. It does indeed appear that the good old-fashioned safe clones like PR 107 and GT 1 don't suffer over much from diseases, and this perhaps accounts for their current popularity!

How promising would you say that pre-emptive defoliation is as an economic proposition?

I think that this technique, which we have called 'controlled wintering', is an extreme remedy for an extreme situation. It is very appropriate in situations where you have very severe secondary leaf fall, for instead of attempting to treat the disease directly by spraying or dusting, if you artificially defoliate the trees early in the year they will then refoliate in good time and avoid secondary leaf fall. Unfortunately, for best results the defoliant has to be applied from the air. This immediately puts up the cost of the treatment; add to that the difficulty of marking an area so that it can be properly and completely sprayed from the air with no danger of the aircraft flying outside the area to be treated, and you have two quite large problems: the first of cost and the second of practical difficulties. Nevertheless, having said this I think the technique does hold tremendous promise for problem areas, and if a method could be found of getting on the defoliant more cheaply and more easily then I think the idea would catch on in a big way.

Can one apply the defoliant treatment from the ground?

Yes, it is possible to do this, but with present equipment and formulations ground-based spraying needs a tremendous application rate per acre, whereas an

aircraft can apply about 4 gallons very evenly and get a better effect. From the ground one would need to apply about 25 gallons per acre unless one is able to use oil as a carrier, and this immediately demands special formulations of the defoliant. The other problem is the fact that unless you get defoliation of the very top-most leaves of the canopy (which is difficult from the ground) you can't persuade the tree into thinking that it has defoliated, so that unless you get those last few leaves off the top of the tree, it doesn't re-leaf any sooner.

While we're on the subject of aerial operations, is there any development in the detection of diseases by aerial photography?

I have not heard of any new developments since the paper by N.T. Arasu and co-workers given at the ISP 1970 Crop Protection Conference. But as far as rubber is concerned, to the limited extent that infra-red photography has been used, it is successful, for root disease patches and diseased trees do show up. The difficulty is locating on the ground the diseased trees which you have spotted in your aerial photograph. It is no easier or quicker to pinpoint a tree which you believe from a photograph to be diseased than to go round the field with a changkol and inspect the roots. You still have to take a changkol to it in any case. I do not think aerial photography would help in detecting leaf disease, for it is visible to the eye anyway.

Has any progress been made recently in controlling pink disease, which still seems to be quite a problem in this country?

Well, there is now a new paint-like dressing available on the market which, if applied when the infection is in an early stage, will give control for 3 or 4 months. This is a fairly recent development, and I understand there is likely to be a second dressing available in the near future. But of course climbing the tree and painting has disadvantages. It is very slow, and can only be done when the tree is quite dry because a slippery trunk cannot be climbed, and also treatment in this way is rather expensive. For these reasons I think that Bordeaux mixture will still remain the preferred fungicide for many years to come. It has the advantages of being quick to apply, cheap, and relatively persistent, although of course you do have to respray after a week when the weather is wet. The disadvantage of Bordeaux mixture is that you cannot use it on trees in tapping because of the danger of contaminating the latex, but fortunately pink disease is mainly confined to immature trees anyway. For mature trees there is still no alternative to the standard proprietary product, though I would recommend that it be used at four times the currently recommended concentration, *i.e.* at 2%.

Has the introduction of intercropping with rubber brought any new pathological problems in its wake?

We at the RRIM haven't ventured too deeply into the pathology of these other crops, for this is really MARDI's province. However, there is one estate crop that does indeed appear to have brought in some new problems with it, and that is cocoa. I have recently seen some extremely severe stem canker on cocoa caused by *Phytophthora*, and I rather fear that this disease will increase in importance in the

future. The control of a severe outbreak would not be particularly easy, and the material we are planting now does indeed seem to be very susceptible to it. The species of *Phytophthora* involved is the cocoa strain of *P. palmivora*, that very ubiquitous species which has quite a range of hosts. Some Sabah hybrid material is particularly susceptible to *Phytophthora* stem canker, more so I understand than Amelonado.

Phytophthora leaf fall was first detected in West Malaysia a few years ago. Fears were expressed then that a new scourge, perhaps as devastating as South American Leaf Blight, had descended upon us. Is there any more cheerful news on the subject as of 1973?

When I came back from leave in 1966 I was greeted at the airport by my colleagues with the news that *Phytophthora* leaf fall had appeared in Malaysia. This disease has affected rubber in India and Ceylon for many years, and it is perhaps rather surprising that it did not hit Malaysia until 1966. Thankfully the disease does not seem to have spread far beyond the bounds of its original discovery, which was Langkawi, Perlis and then subsequently Kelantan. Where it occurs on high yielding clones like RRIM 600 it certainly brings about almost complete defoliation and with probably some slight depression in yield also. Fortunately the disease is very easily prevented—not cheaply prevented but easily prevented—by applying copper-in-oil immediately before the monsoon rain. But so far this prophylactic treatment has not been necessary on a large scale in this country. We hope that weather conditions will prevent any further spread of the disease. There seems to be no reason why the disease should become any more severe than it is at the moment.

It is understood that Phytophthora leaf fall was first detected in this country in clone PB 86 and later on with almost equal severity in RRIM 600, which has as one of its parents, PB 86. Is it possible that it is the PB 86 genes which transmit the susceptibility to Phytophthora leaf fall?

Well, it sounds too much like coincidence for there not to be some connection. Bear in mind also that Tjir 1 is fairly susceptible to *Phytophthora*, and is also a parent of RRIM 600. I would certainly agree that PB 86 and RRIM 600 are the most susceptible clones, and the fact that they are linked genetically is significant.

Would you like to say anything about your own particular contribution to the pathology of Hevea?

I would like to think that I've added something to our knowledge about the distribution of *Oidium* and *Gloeosporium*, not only throughout the country but between different cultivars. I've spent quite some time working on developing a method of assessing the susceptibility of these clones at the nursery stage so that their reaction to the disease can be assessed early in the breeding programme, and any clones of unduly high susceptibility can thereby be eliminated. It's always been my feeling that in the past we've paid too little attention to secondary characteristics of *Hevea* in our planting recommendations, and disease susceptibility is one very

important secondary character. Now that we have been able to map more accurately the distribution of diseases across the country we are now in a position to make specific clonal recommendations for each area.

Pathology doesn't really lend itself to very glamorous treatment, and has little appeal to the general public, or even to the planter! It is essentially a basic discipline which is carried on 'behind the scenes' as it were. One only needs to call on the pathologist when something awful has gone wrong. To this extent he is treated rather like a fireman; while things are fine he is not needed, but as soon as someone runs into trouble he calls for us to come out and douse his conflagration, or at least to ameliorate its effects! But of course the basic work, the important work, of the pathologist is not so much in curing diseases once they have occurred, but in preventing them from occurring. This is essentially a basic long-term kind of approach; I've been much engaged upon this and I have certainly found the work enjoyable.

For the last 12 years you've been concentrating on rubber pathology; has this aroused your interest to the extent that you would like to stay with this crop?

I would most certainly like to retain an interest in Hevea if possible, although I don't see myself continuing full-time in this field in the immediate future. I've been fortunate to see rubber growing not only in West Malaysia but also in Ceylon, India and Liberia, and I would like to think that my experience of rubber cultivation would be of some use to somebody in the future. One obvious use, and one that I regret not yet having got round to, is to write a book on the pathology of Hevea. This remains a dream, and something that I would like to do one day. But I think I should go on to say that after 12 years with one crop one does tend to get a little stale. Now is the right time to think about moving elsewhere and being faced with some new problems, with a new crop perhaps. This I also look forward to, though admittedly with a little apprehension. I have enjoyed my stay in Malaysia very much, which makes it all the harder to leave.

What outside interests have you developed in your stay in Malaysia?

My association with the ISP in recent years has given me an immense amount of pleasure, and I must say that I am tremendously pleased to receive the recent award of FISP. I've enjoyed meeting planters on my visits around the country, and I've enjoyed editing the Society's publications, and being involved with *The Planter*. As far as my other outside interests are concerned I've derived much pleasure from the Selangor Philharmonic Society, both as a singer and as a conductor of the choir, and I shall certainly be sorry to say goodbye to this activity, though I hope to be able to take it up again in the future. I've also enjoyed scratching around in my garden, and modestly consider myself quite an expert at producing tomatoes.

What are your plans for the immediate future?

Simply this—to go back to Britain and look for a job. I think for family reasons I would prefer to be based in Europe, though I have no particular aversion to working overseas. As you know I've always been engaged in research and development in plant protection, and I would like to continue this work in the future. I wouldn't mind university teaching; but I would really prefer to work with an agricultural or horticultural crop that is of some value to the world at large.

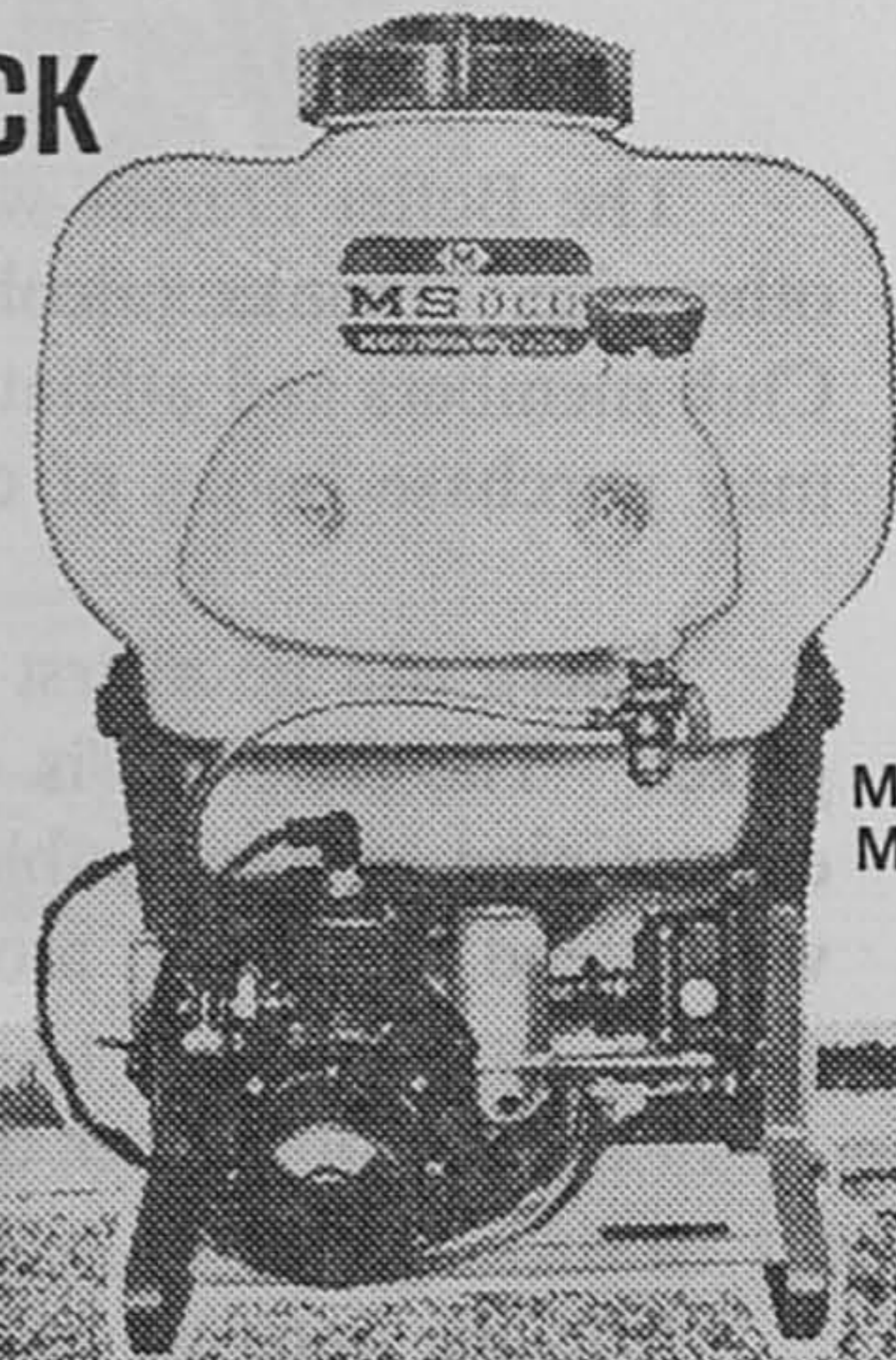
It is surprising to learn that you have no other job in prospect at the moment and on behalf of the ISP would like to wish that this state of affairs does not continue for very long. And on behalf of The Planter in particular we thank you for your contributions over the years.

MARUYAMA KNAPSACK TYPE POWER SPRAYER

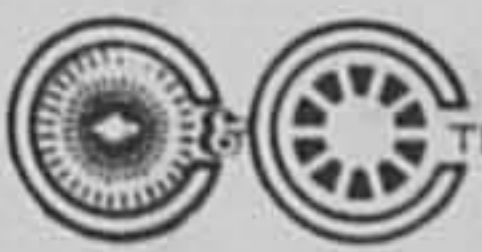
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- * Good for flowers, vegetables, fruits green-house usage and farming.
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The Negri Sembilan Branch of the I.S.P. announces

A Buffet Dinner and Dance

Date: Saturday 16 June 1973

Place: Sungei Ujong Club, Seremban

Time: 8.00 p.m. to 2.00 a.m.

The Buffet Dinner will comprise at least eighteen dishes—hot, cold, spicy and otherwise. Drinks (alcoholic and non-alcoholic) may be purchased at the Club. Club members and affiliated members may sign in the normal fashion; non-members may purchase books of coupons.

There will be a first rate band, spot dances, novelties etc. with many valuable prizes. The function is on a "NON-PROFIT" basis and promises to be a very entertaining and enjoyable evening and we hope that as many members as possible will attend and bring along their good ladies and guests.

For the sober beer drinkers there will be a BEER DRINKING CONTEST.

For the interest of the ladies there will be an exhibition of IKEBANA—Japanese art of flower arrangement, sponsored by a leading expert. Approximately twenty exhibits will be on display for the whole evening.

Cost: \$8.00 per person

Dress: National dress, lounge suit or long sleeve batak

Members wishing to attend are requested to contact Mr. J. Lopez of Kirby Estate, Labu, Negri Sembilan.

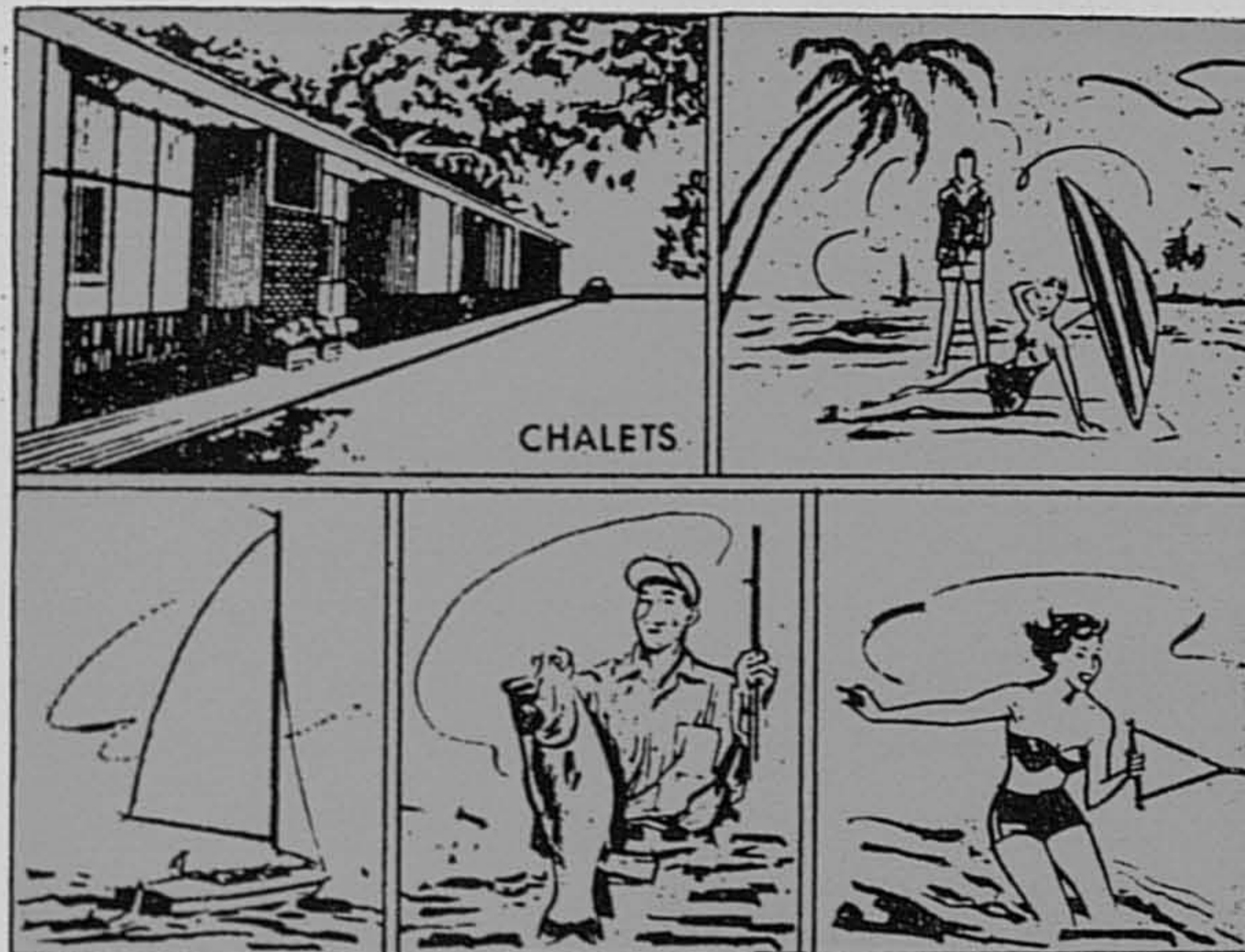


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WHY TRAVEL OVERSEAS WHEN EVERYTHING YOU REQUIRE IS HERE?**

Acti-Dione attacks fungi from the inside.

MS-AG(E)

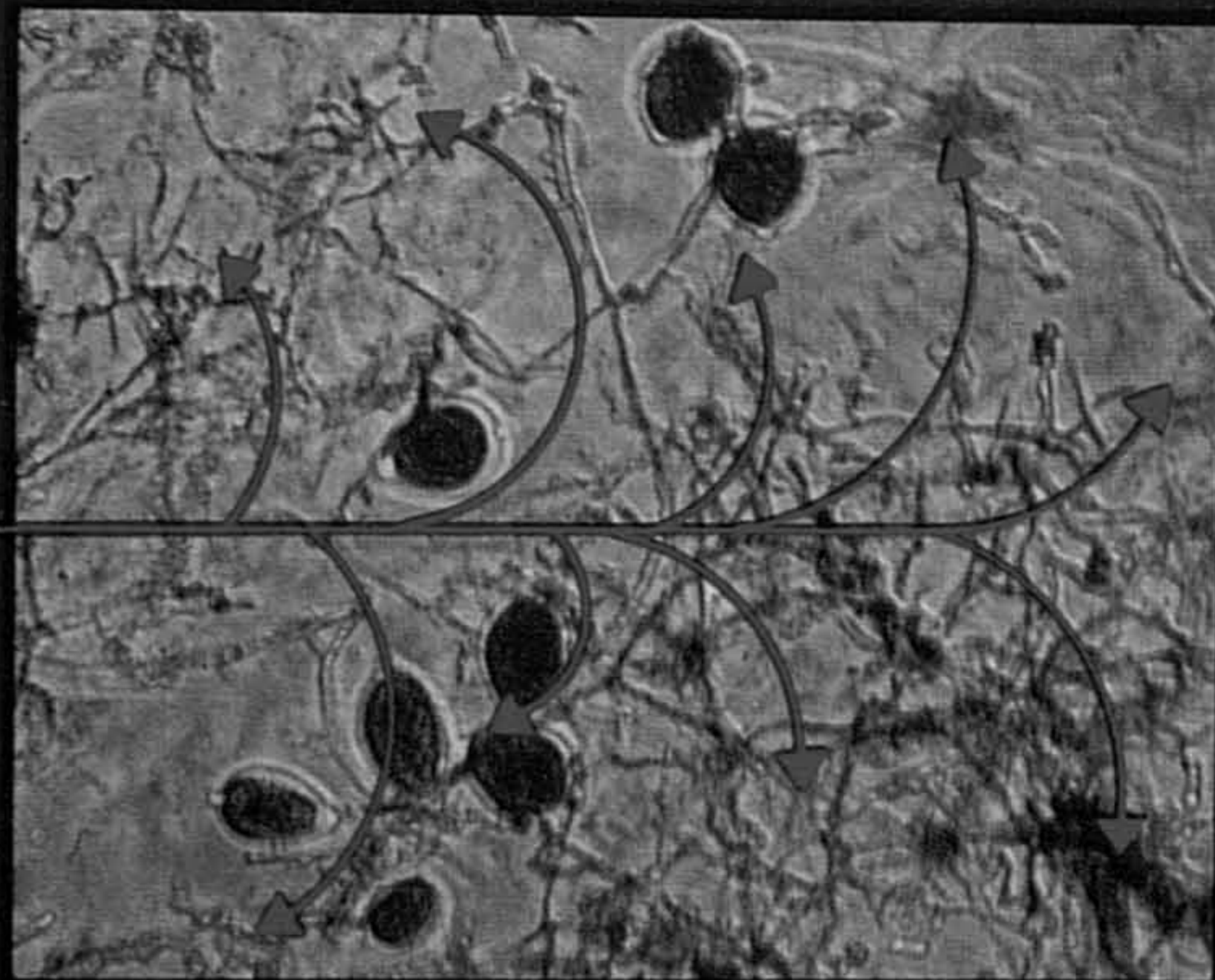
Some fungi cause disease. Blackstripe and Mouldy Rot in rubber trees. Stem Canker in cocoa. If let alone they spread. Fast.

Control these fungi and you control the disease. Acti-Dione does it. It is an anti-biotic fungicide. It's a localised systemic fungicide, acting on the infected plant tissues. The fungi cells are selectively destroyed by Acti-Dione. Fast.

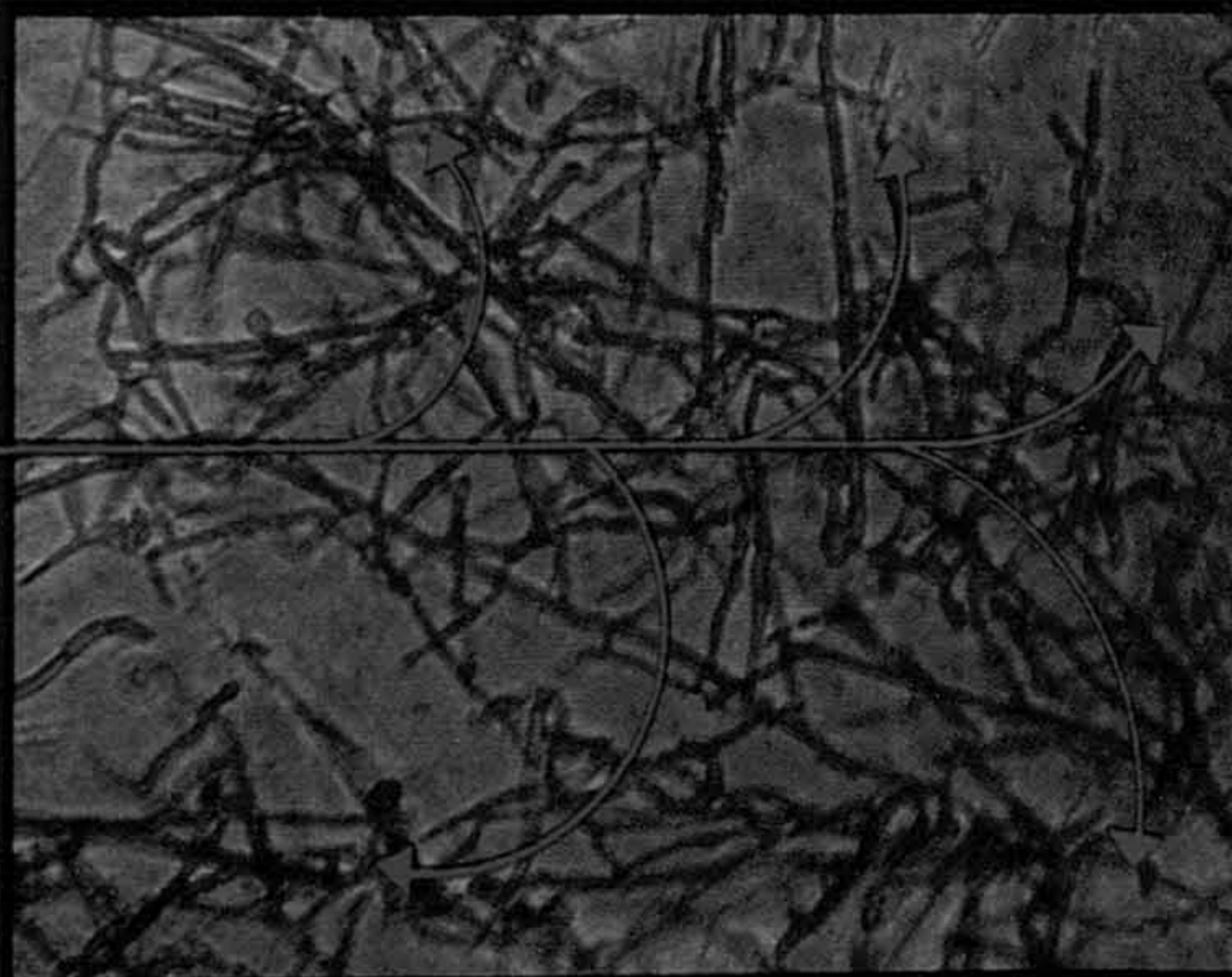
But get more details from your nearest Shell office. And remember: if you need a chemical — or you think there may be a chemical that might help you — call Shell Chemicals.



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Shell Chemicals

Harking back: 1925-1928

Having lived and worked in this country for many years I feel it might be of interest to the planters of today to learn something about the conditions that then prevailed. To begin with let me recount how I came to be a planter.

After service in the first World War followed by four years in the Indian Army I found myself in early 1923 jobless and living with my parents in the south-west of Scotland. My great desire was to return to the East. A friend advised me to make contact with an important man in the rubber world whose habit it was to come to that part of Scotland in August every year to enjoy some shooting. This I duly did in August, 1924. The man in question was Mr Henry Waugh. He had, I knew, spent some considerable time in Malaya and asked me many pertinent questions about my life in India. He then gave me a whisky and soda and said I would be hearing from his people in London.

Eventually a letter arrived from a London firm of secretaries of rubber companies. They offered me a post as assistant manager of one of their estates in South Kedah; this was accepted with alacrity. My contract would be for a period of four years; salary would be \$275 per month rising to \$350 in the fourth year. At the end of the contract I would be given 8 months leave on full pay, passage to be paid by the company. The secretaries told me to book a passage—first class—on a Blue Funnel liner, let them know the cost and they would re-imburse me. At the time I had about £5 in my bank account and the cost of a passage was £88. However, that hurdle was surmounted—I forget how. The secretaries went on to say that I would find the estate some 21 miles east of Penang. As the crow flies that was correct but I am not a crow. By road the distance was, and still is, 43 miles. The writer of the letter had clearly never been further east than Margate.

After a delightful voyage on the Blue Funnel liner *Hector* I disembarked at Singapore and stayed overnight at the Europe Hotel—long since gone. On arrival at Penang I was met, and taken to the estate by the manager. This was in February, 1925. The property, formerly Chinese-owned, had been taken over by the manager a year previously. It consisted of some 900 acres planted with rubber mostly mature, and a jungle reserve of 300 acres. This reserve was to be cleared and planted in 1926/27.

There was no entrance road to the estate; just a path along which one walked or cycled for 1½ miles. London had been requested by the manager to agree to three requirements and in this order:—

- 1 An entrance road
- 2 A bungalow
- 3 An assistant

London got their priorities a bit mixed and sent me out first. Eventually both the entrance road and bungalow were sanctioned and constructed. Until the bungalow

was built the manager and I lived in a Chinese kongsi house, a very odd building. There was one decent bedroom which the manager occupied. There was also a passable sitting room and a dining room of sorts. Then there were no fewer than eleven cubicles—obviously formerly occupied by kapalas. One of these was my bedroom.

Lighting was by kerosene lamps. There was no refrigerator and no telephone. We had a large ice-box into which we dumped about 100 lb of ice on Mondays. This lasted until Thursday and then we waited anxiously for next Monday to come round. We lived on the country and with some success. My cook-boy cost me \$25 a month; eggs were two cents each; good fish and chicken were absurdly cheap. Cigarettes cost 22 cents for a tin of fifty and Scotch Whisky was \$3.80 a bottle.

Subordinate staff consisted of a conductor, an office clerk and a dresser. All were South Indians and English-speaking. The labour force was mostly Tamils from South India though we had a few Telugus. None of these spoke any language other than Tamil or Telugu; quite clearly I must learn the Tamil language. The first job given to me was to supervise the tapping gangs which to begin with consisted of some 60 tappers and 4 tindals (kanganis). Later these numbers rose to 150 and 6 and I learned Tamil in my daily conversations with them.

The previous owners had their own peculiar ways of running the estate. In the mature areas there was still a lot of jungle timber and none of the stumps of large jungle trees had been removed. This was a blessing in disguise as we soon found out—we wanted it all as fuel for the factory. There had been no attempt at thinning out and some fields carried a stand of 200/220 trees per acre.

Tapping was generally on the alternate daily system on a V cut over half the circumference of the tree. However, owing to lack of bark reserves, this had to be modified; some trees could tolerate the full V cut; some were put on a quarter cut; some were left out of the tapping round until bark had renewed to such an extent as to permit them to be brought under the knife again. The wisdom of this policy was amply proved. In 1925 we harvested 400 lbs per tapped acre; in 1930 we were getting 650 lbs. Meantime thinning out had been completed and the stand reduced to 150/160 trees per acre.

The factory would have delighted the heart of Heath Robinson. The power unit was a very old steam engine supported by two boilers made by Cochran and Co., of Annam, Scotland. The sheeting battery was of local manufacture made by—I shall never forget the name—Hip Lee Loong Hup Kee of Chulia Street, Penang. In due course all this antiquated equipment was, to our great relief, scrapped and replaced by a diesel engine and a British-made sheeting battery.

There is much more that I might tell of those days but enough is enough. To conclude, here are two tales from my rag-bag of memories.

1. Sinnathai, senior of two wives of a tapping tindal, was a tapper and a pretty poor one at that. One day at latex reception she arrived with her

bucket of latex. A sample was taken and the metrolac, when inserted, bobbed up like a cork. My suggestion that the latex had been diluted led to long and loud protestations from Sinnathai. She would never resort to such a dirty trick. Unconvinced, when she took her bucket away I followed. As the latex was poured into the strainer over the coagulating tank there appeared a small but very lively fish. My contention was proved. All the tappers standing around had heard our earlier exchanges and now they saw the fish. They hooted with laughter; Sinnathai, believe it or not blushed; but she never added water to her latex again.

2. He was a young planter and always hard up. In his mail one day he received from a then well known Penang tailoring firm a letter drawing his attention to the fact that he owed them some \$200. To this he dashed off a reply together with a cheque for \$5 to account. He also asked that, as they had his measurements, would they be so good as to make and send him another Palm Beach suit? A few days later the firm sent him a receipt for his \$5; there was no letter and no mention of the Palm Beach suit. Some two weeks or so later his mail brought a very stern letter demanding early settlement of his debt. However, he was not beaten. Replying to this letter he said that the firm did not appear to appreciate the procedure followed in his household upon receipt of bills. As and when received these were put in a drawer in his writing desk. At the end of month, having drawn his salary cheque, the bills were extracted and put in a hat. Then, one by one, the bills were taken out and cheques in payment made out until funds were exhausted. Any bills remaining unpaid were returned to the drawer for attention at some later date. His final sentence was superb. It said quite simply and clearly that, should they be so ill-advised as to send him any further letters such as this, then *their bill would not even go into the hat!*

A. S. TAYLOR

Rumah Bintang,
Batu Caves,
Selangor.

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The monthly crop

Candidates for TES examinations please take note that you cannot telephone your registration for an exam. Registrations must be in writing and accompanied by the fee of \$30; moreover they *must* be received not less than 14 days before the examination date, as must any notice of cancelled registration.

Even as much of the world bans DDT and major producers stop making it, UNIDO* is studying locations for new plants which will make more DDT than ever before. According to their latest newsletter DDT is blamed for the near extinction of several bird species, for the rise of generations of super bugs that thrive on the insecticide, and for contamination—with as yet unknown effects—of the global food chain from plankton to man. Yet DDT remains vital to developing countries. It is still the most effective control medium for malaria, which kills 2 million Africans every year.

Africa currently uses only about 1000 metric tons per year of DDT for malaria control, which the major three remaining manufacturers in Europe and North America can supply. But the WHO wants to increase the control programme so that it will need 10 000 metric tons a year. Not only is there not much DDT producing capacity in the world, but the withdrawal from the market of just one of the leading producers would cripple the present already too small programme. WHO called an inter-regional conference in the Congo a few months ago and UNIDO consultants provided data from which the feasibility of building local manufacturing plants in West and Central Africa will be assessed.

and what happened when Sweden banned DDT? Certain insects thought to be under control stormed back in such numbers that Sweden's vast forest industry was threatened. After 2 or 3 years, they lifted the ban.

Having rocks chucked at your car by irate villagers is nothing new to rally crews in the famed East African Safari, but the habit seems to be spreading to neighbouring territories. The *East African Standard* reports that an African blew himself up when he threw a hand grenade at a passing motorist in Rhodesia's Centenary farming district, and believes that 'either the grenade bounced back off the car or that he threw the pin and held on to the grenade'.

Facts from our Environment is the name of an interesting little booklet of which the Potash Institute of North America has produced a first printing of 125 000 copies, and we are lucky to have got hold of one. The booklet (we quote) 'simply pulls out some truths that get blown away in the winds of committee rhetoric and doomsday hearings—facts that never make the headlines'. A current headache is pollution, 'in some cases fact, in some cases myth', and in answering the question: 'Is environmental pollution a new peril to man?' a distinguished Rutgers University

* United Nations Industrial Development Organisation

scientist Dr Robert White-Stevens replies: 'No—though it has been made to appear so'. He cites some of the new vocabulary that has grown up to confuse and defy definition: 'ecosystems', 'bionomics', 'territorial integrity', 'behaviourism' and 'biotype'.

Dr White-Stevens makes three striking contentions, based on a lifetime of study, respected around the world: THAT life everywhere has always been threatened by pollution and the hazard of contamination.

THAT reduction of one form of pollution in one place, be it animate or inanimate, generally creates another, hopefully less injurious or annoying contamination, elsewhere.

THAT pollution is a relative matter, the hazard of which depends entirely on the biochemical activity of the substance involved, its rate of decay or conversion, the nature of the degradation products, the route, degree and frequency of exposure to humans, domestic livestock, wildlife and crop plants and their relative capacity to metabolise such compounds'.

So nice to have things in their proper perspective; like the English-language sign placed on all tables at Tokyo's Imperial Hotel during the recent water pollution scare: 'All vegetables used in this dining room have been washed in water personally passed by our chief cook'.

A Planter's Dog is invariably a happy creature, and the same probably goes for his cat and any other domestic animals he may have. The estate environment and a friendly and considerate owner breed a loyalty and affection rarely found in the towns, at least to the same degree. All the more reason then that the planter should sometimes spare a thought for the many thousands of less fortunate animals who have never known the comfort and security of a good home and master.

The figures published annually by the SPCA and RSPCA in Kuala Lumpur and Penang respectively tell a story which is both sad and reassuring. The RSPCA collected more than 23 000 strays in 1972, most of them female puppies and kittens. The Society's activities are now so well known that people wishing to dispose of animals wait by the roadside for the ambulance. The RSPCA's Annual Report contains the following: 'What would be the position if this multitude, an average annual toll, had been allowed to live and propagate? It needs little imagination to see our roads become the haunt of starving and emaciated cats and dogs, as can be seen in some Asian cities today'.

The average *daily* number of 'phone calls received each day by the RSPCA from persons asking for strays to be collected is 5.

In a conurbation the size of Kuala Lumpur the SPCA have a much more difficult problem, but they too have done well despite their still limited facilities and a largely indifferent public. In 1972 the SPCA's van answered 1 911 calls, homes were found for 353 animals, and 1 825 were painlessly destroyed.

The SPCA in Kuala Lumpur have had appreciable success with their fund raising and have recently built a block of 10 new kennels. There are now isolation kennels for cats (called 'catteries' we believe) and an aviary. There is even accomodation for hamsters; but as yet, Kuala Lumpur cannot rival Penang's haul of strays, other than cats and dogs which totalled, at the end of 1972: 5 musang, 4 goats, 5 monkeys, 74 chickens, 10 rats, 5 guinea pigs, 2 rabbits, 1 lizard, 1 bird and a shark!

The committee of the SPCA small though it is, includes a planter and a planter's wife. Another planter is active as a consultant where the kennels are concerned. We would urge ISP members to learn more about the activities of this most worthy organisation by doing all or any of the following:

- 1) Join the SPCA. (Forms are available from the ISP)
- 2) Visit the kennels, and perhaps even take away a stray and give him or her a good home.
- 3) Telephone the SPCA (KL 64142) and report the location of any stray, sick, or maltreated animal.

Finally, as an example of what can be achieved through vigilance and prompt reporting to the SPCA, we recount an incident which occurred on the day these notes were being written.

One of our members saw a stray dog, obviously sick and in great distress, curled up in a corner of a landing in one of Kuala Lumpur's more prestigious blocks of flats where, we were later told, those residents who had seen the dog had chosen to ignore it. A call to the SPCA resulted in the swift collection of the animal which was found to be in the terminal stages of distemper, and painlessly put to sleep. The poor creature wore a wire 'collar' attached to a short length of rope obviously chewed through in its natural instinct to get away and die quietly somewhere. Its owner, if such he can be called, thus released into the district a virulent source of one of the most highly infectious diseases of domestic animals.

Both the Alice Smith and Garden Schools in Kuala Lumpur have recently 'adopted' a kennel each, for the accomodation of strays—more often than not a bitch in whelp. We wonder if the ISP's biggest branch, Selangor, might consider doing a similar kindness?

The Negri Sembilan Branch of the ISP announces a Buffet Dinner and Dance for 16th June. For details please see the notice on page 201.

Conservation in Malaysia. We apologise for the non-appearance of the Conclusion of this work in the May *Planter* but assure readers that it will definitely appear in the June issue.

Here's what the new Massey Ferguson tractors have for you.

Bigger horsepower

The proven, reliable Perkins diesel engines now have increased horsepower to handle jobs, at economical costs.

MF 135 — 47 hp. Maximum Torque:

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219 lb/ft @ 1,300 rev/min.

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Hydraulic 3-point linkage system

Stronger heavy duty lower links and top links are interchangeable to suit Category I or II implements on both the MF 165 and MF 185.

5-plate oil-cooled disc brakes

A rugged square section houses the disc brakes giving smooth, powerful, fade-resistant braking and increased service life. Standard on the MF 185.

Exclusive pressure control hydraulics

Massey Ferguson's most advanced Pressure Control Hydraulic system is now standard on all models. The system increases power output, gives better braking, extends work capacity up to 40% and reduces wheel slip at the touch of a lever.

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The new heavy duty, dual element, dry air cleaner has a 3 stage filtration technique which gives longer engine life.

Several other important changes have also been incorporated to improve the versatility of each model.

When it comes to earning big money faster and easier, get the new Massey Ferguson tractors to work for you. They are the world's best selling tractors in their class.

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Book review:

P. W. ALLEN: *Natural Rubber and the Synthetics*. Crosby Lockwood, London. 255 pp. 1972. Price £4.95. Hardbound.

In this book Dr Allen, a senior Principal Scientist at the Natural Rubber Producers' Research Association, provides a useful review of the rubber scene in all its diversity, with enough historical background to provide meaningful perspective, and in sufficient detail to equip most readers with the most basic and important facts, and access to still others, which are necessary to an understanding of the nature, exploitation, production, diversity, marketing, and economic aspects of rubber. Natural and synthetic rubbers are described and broadly classified; an account of large-tonnage, medium-tonnage and small-tonnage rubbers is presented, but with an eye for the main aspects. Throughout the book a clear and unbiased appraisal of the strengths and weaknesses of the various types of rubber is presented; the rather disparate problems of the natural rubber production industry on the one hand and the synthetic rubber production trade on the other, are clearly discriminated and evaluated. The interplay at various levels of technology, management, marketing, national economic situations and other factors, regarding the production, manufacture and consumption of rubbers and rubber products is skillfully described.

There are eight chapters. The first sketches the chemical and commercial types of rubber, rubber properties and the delimits of the rubber industry. The second traces the historical evolution of rubber production and usage. Chapter 3 is devoted to the production of natural rubber and like other chapters, mentions the Malaysian scene several times. Chapter 4 does the same for synthetics. In Chapter 5, natural rubber, styrene/butadiene rubber, polybutadiene rubber, synthetic polyisoprene, and various other special rubbers are described in some detail. Chapter 6 covers the market situation; Chapter 7 examines the rubber manufacturing industry, with a section on the choice of rubbers; and Chapter 8 gazes into the crystal ball in a sober and restrained manner.

Some salient points brought out by Dr Allen are these. First, he sees the natural rubber producing enterprise as one of containing economically viable potential, since, although naturally produced rubber will probably in future slowly decrease as a percentage of all rubber produced, nonetheless the absolute amount will inexorably increase. Second, he feels that the prices of synthetic rubbers have reached a probable plateau and that economies of scale (*i.e.* massive manufacturing establishments have driven costs down about as far as they can go. Third, the future may hold in store a "third generation" of rubbers which he terms "convenience rubbers" or those which will appeal to rubber manufacturers for reasons of simplicity, appropriateness and reduced processing expenses. A "ready-to-use" rubber is one such possibility; the search for a way of eliminating the vulcanization stage is another. In sum, convenience rubbers will be ready-mixes, pourable or castable, or thermoplastic, and they could be blends of NR and synthetic or modifications of NR or synthetics.

The search for new uses will continue, but tyres of all sorts will no doubt continue to be the main manufactured product. Allen does not foresee a bright prospect for rubberized road surfaces-as the costs are about 40% above those of the usual bitumen.

In sum, an informative and rather reassuring book which discloses, and justifies, continuing faith in rubber and, in particular, in natural rubber. Any supposition that the natural rubber industry cannot long survive is demonstrated to be untenable, "resulting... from a basic misunderstanding of the nature and significance of everything that has been happening in the world of rubber during the past few decades". Although synthetic rubber currently uses up only 5%-10% of world petroleum production, it seems possible that pressures on the price of petroleum will send up, in turn, the costs of synthetic rubber. The major rubbers and other polymers of the Twenty-First Century may come from further adaptations of that remarkable plant *Hevea brasiliensis*.

The economist will find a useful discussion herein of the manner in which both estates and small-holdings provide the basis of NR production, and much *kudos* for the Malaysian rubber industry, particularly the Malaysian research organizations, the SMR scheme with its technical specifications, the small-holders' development plan and Malayan Rubber Export Registration Board.

The major gap in the book is (through no fault of the author) the almost total absence of information on rubber in all its aspects in China, Eastern Europe, and to a large extent, in the USSR. Trade figures being wanting, there is nothing to be done except rely, as Dr Allen has, on "educated guesstimates" of production, consumption, *etc.* in these areas. One would particularly like to know the potential impact of petroleum discoveries in Siberia, since various outside firms from the U.S.A. and Japan are involved in assisting Soviet technology to exploit these new fields. Also hardly mentioned are the various alternative sources of "natural rubber" which, although now mainly curiosities, played a certain role during World War II: for example, *Taraxacum kok-saghyz*, *Parthenium*, *etc.*

This book will be the one-volume survey of the subject most likely to appeal to the general reader.

B. C. STONE.

Letters to the Editor

KING'S PARK AND BOTANIC GARDEN

West Perth
Western Australia, 6005
9 May 1973

The Editor,
The Planter,
P O Box 262,
KUALA LUMPUR

Dear Sir,

Capture of Birds for Release

Your correspondent A-142 submits that education in conservation would be better directed towards countries in the temperate region, which import colourful tropical birds such as parrots, than at Malaysians, especially Buddhists.

Firstly organisations like the Royal Society for the Protection of Birds and the International Council for Bird Preservation (now 50 years old) have long been engaged in education and achieved considerable success, especially in the temperate regions, by introducing and enforcing legislation to control the import of birds and plumage, and to prevent the destruction of migrants, as well as more local or domestic matters. Moreover they have encouraged the formation of avicultural societies to promote the care, breeding and rearing of captive birds, so reducing the demands on wild birds.

Secondly the supplier in the tropics needs education even more urgently to conserve this renewable resource than the importer: although the latter creates the demand, he does not control the supply.

Thirdly, it is a precept of Buddhism, Christianity, Hinduism and Islam that the sins of others provide no excuse for the failure to examine one's own conscience and behaviour.

An account of a Survey of Bird Sales at the Bangkok 'Sunday Market' by Dr H.E. McClure and Mr Somthop Chaiyaphun in the Migratory Animal Pathological Survey Progress Report for 1968, pp 57-73, tallied the sales of live birds as pets (cage birds) and for release by Buddhists over two years. The total was 622 318 birds of 369 species on 82 days, an estimated annual sale of about 400 000 birds. About 17% of the birds were imported and 83% were native Thai birds. 19 species each accounted for 1% or more of the sales. These 19 species together accounted for 78.4% of the birds sold (*i.e.* 350 species for the other 21.6%). Four of the 19 were imported birds: —

Budgerigar	6.6%
Canary	1.7%
Zebra Finch	1.4%
Ring-necked Dove	1.1%

The 15 native species were: —

Spotted Munia	14.2%
Yellow-breasted Bunting	14.0%
Baya Weaver	10.5%
Pin-tailed Parrot-finch	4.7%
Zebra Dove	4.1%
Strawberry Finch	3.4%
Chestnut Munia	3.3%
Yellow Wagtail	2.6%
Spotted-necked Dove	2.4%
White-headed Munia	1.8%
Manyar Weaver	1.5%
Red-whiskered Bulbul	1.5%
Mustache Parakeet	1.4%
Blossom-headed Parakeet	1.2%
Sharp-tailed Munia	1.0%

(The domestic pigeon mentioned by A-142 was not among those commonly involved).

The investigators could not determine the proportion of the live birds sold destined for release, although this was probably high because Bangkok has a predominantly Buddhist population. The investigators purchased 10 207 birds of 88 species and released them under as favourable conditions as possible after feeding and banding them for identification. One Baya Weaver re-appeared in the market three times. Follow up investigations indicated that most birds probably died before they could establish themselves in the area of release (already occupied by resident birds) or they could return to their original areas.

There was evidence that some dealers deliberately sold birds in poor condition so that re-capture for re-sale was easy. However, in general the birds were badly cared for and ill fed due to ignorance or that it was too much trouble to care for birds for sale. Insect-eating birds such as the Yellow Wagtail (more than 16 000 individuals were recorded passing through the Bangkok 'Sunday Market' in 2 years) have virtually no chance of survival as cage birds or after release by the layman (ornithologically). Seed-eating birds such as Munias and Weavers (including the *Burong Pipit* mentioned by A-142) probably can stand capture and captivity or release better than the other birds, although the magnitude of the trade causes

anxiety in some cases. For example not only were live Yellow-breasted Buntings for sale, but there was also a great traffic in carcasses for foods. The total (for the Bangkok 'Sunday Market' alone) was estimated as the equivalent of the entire adult stock on 150 square miles of breeding territory, (all Thailand must affect a huge area). This is of concern to other countries since the bird is a migrant. Many birds which eat seed or fruit as adults, feed their young on insects, which in turn may be pests. Killing migrants upsets natural balances far away.

The investigators in Bangkok made various recommendations with respect to the situation there, including restriction of the trade as far as possible to seed-eating birds, which might be agricultural pests themselves and had a high reproductive capacity, and which could stand rough and ignorant treatment at least well enough that they were not all killed. They proposed education in the care and breeding of cage birds for pets. Both pets and birds for release to acquire merit are luxury items in the family budget, the demand increases with the human population and their *per capita* income.

Perhaps A-142 will complain that the situation in Bangkok is not relevant to that in Malaysia. We have to use the only detailed study made in S.E. Asia. As far as capture for release by Buddhists is concerned, the differences are probably mainly in scale rather than in character. As J.N.M. observed in Dateline Kuala Lumpur (*The Planter* September 1971) pet shops in the Malaysian Capital keep birds and mammals under cruel and filthy conditions without regard for their legal status on the protected list.

Personally I can find no grounds for complacency about any aspect of the animal, including bird, trade in Malaysia, whether for export or for local sale as pets or for release by Buddhists. I have recommended enforcement of the laws for the Protection of Wildlife, but I have not suggested that the Buddhist practice of releasing birds be banned as such. An arrangement might be made for devotees to hire homing pigeons for their ceremonies. The relative merits and demerits of practices by any Malaysians or Thai Buddhists or European Christians are irrelevant. It is the practices themselves which should be re-appraised.

Therefore I conclude this letter as I concluded that section of my article dealing with the release of both aviary-bred and wild-caught birds in Malaysia and—as mentioned—in neighbouring countries.

'At a time when the religious are re-examining their beliefs, one enquires respectfully if the purpose and function of this practice has not become distorted when birds are caught, caged, the majority deprived of life and freedom, so that a few may be released'.

Yours faithfully,

(Sgd.) P. R. WYCHERLEY,
Director.

On the subject of our March instalment of Conservation in Malaysia, we have received another letter from Dr. Wycherley, which follows—*Ed.*

16 May 1973

Dear Sir,

The captions to Tables 2 and 3 of the Section on National Parks and Nature Reserves should have read 'National Parks and Wildlife Reserves in East Malaysia' and respectively 'Sabah' and 'Sarawak'.

Some trails became trials.

Since revising the text, of that section I have received a copy of the 'Protection of Wild life Act, 1972' and I note that the classification is now: —

Schedule 1. Totally Protected Wild Animals (34 species).

Schedule 2. Protected Wild Animals.

Part I Big Game Animals (2 species).

Part II Game Animals (9 species).

Part III Other Protected Wild Animals (35 species). (This includes 7 reptiles).

Schedule 3. Totally Protected Wild Birds (465 species).

Schedule 4. Protected Wild Birds.

Part I Game Birds (71 species).

Part II Other Protected Wild Birds (15 species).

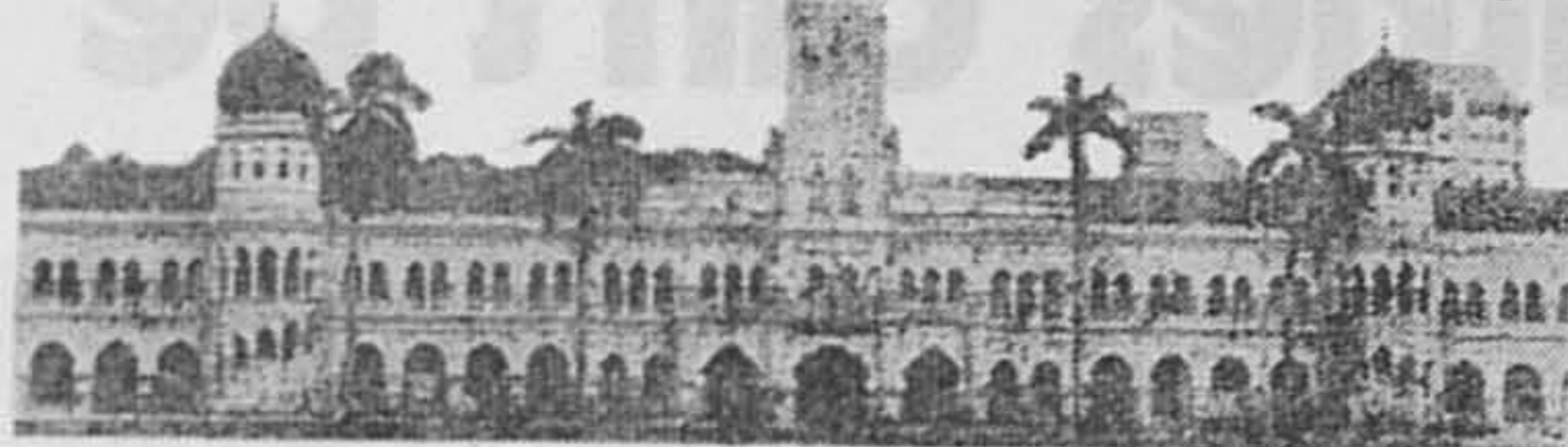
Schedule 5. Protected Insects (1 species).

Although some Protected species of wildlife are still classified also as Game, the Protected category (meaning protected for part of the year and/or except for licensed hunting) has superseded the old Licensed or Game category. Now about one third of the species of Malayan mammals and more than 90% of the birds are afforded some degree of legal protection. This is a step forward, which will be even greater as the protection becomes more real.

Yours faithfully,

P R WYCHERLEY.

DATELINE KUALA LUMPUR



ENGLISH — SPOKEN AND BROKEN

The launching of an English language drive and the announcement of a forthcoming English Language Week by the Malaysian Ministry of Education prompts us to make our little contribution in the hope of being of some help to somebody.

We hope that our students will be warned against some of the misuses of English which currently pollute worldwide the written and spoken word.

One example which has come up very prominently over the last few months is the use of ANTICIPATE instead of EXPECT. Anticipation necessarily means taking some action in expectation of an event, a forestalling if you like.

The classic example of this particular misuse occurred in a report that a certain young couple were anticipating marriage.

THAT instead of WHICH, although wrong, is often preferable these days if it avoids pedantry; but THAT instead of WHO is horrible—'The people that live next door'—Ugh!

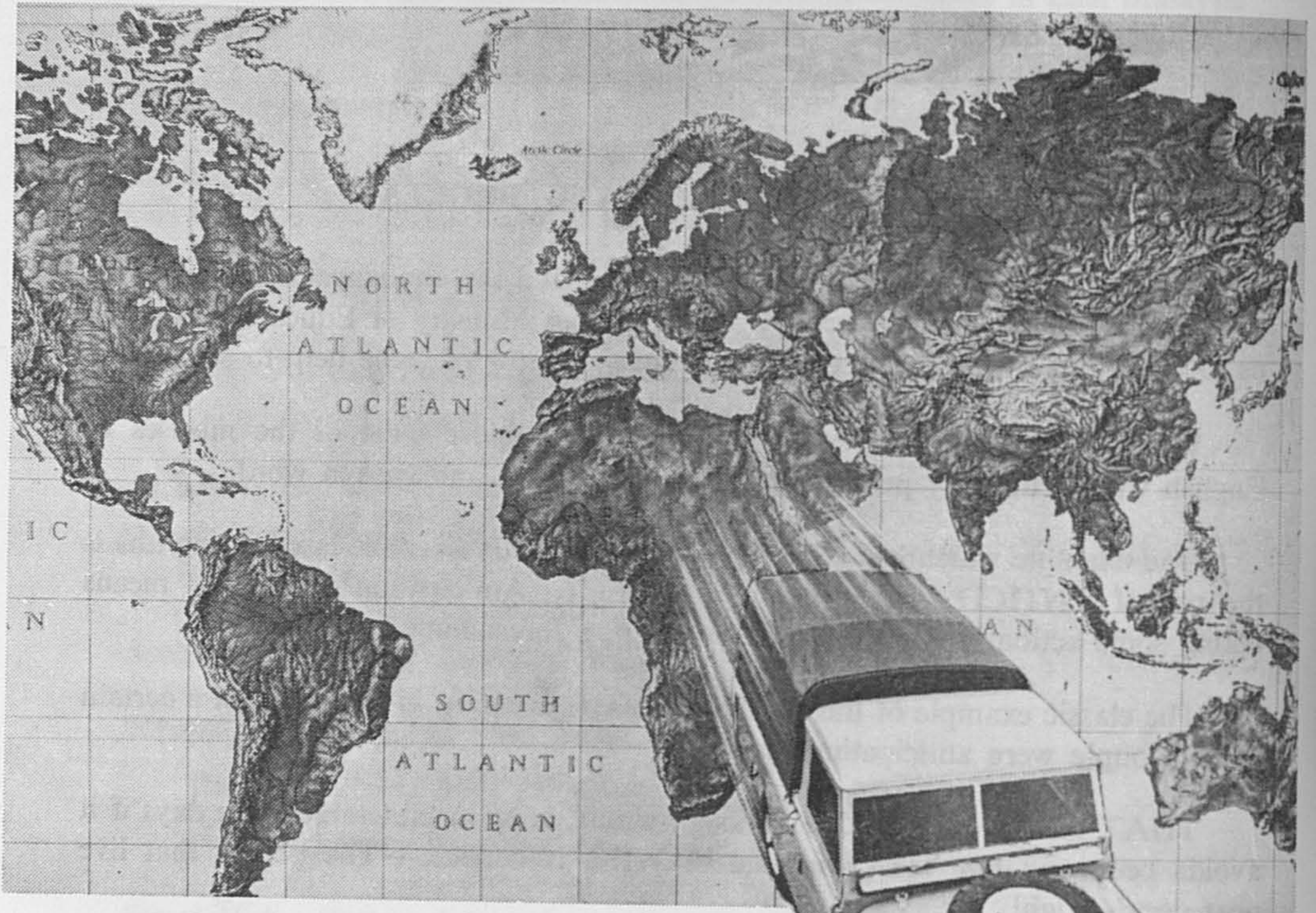
So many people compare things *to* instead of *with* and, having made the comparison, say that they differ *to* each other rather than *from*; even worse is the American 'different *than*.'

How did QUITE come to mean partially when it means just the opposite, absolutely or entirely?

The Scots are renowned for their inability to distinguish between WILL and SHALL and there is a story of a Scot who was drowning, just off the pier at Aberdeen. Unfortunately for him the only witnesses were a group of Englishmen who sanguinely looked on as the struggling Scot yelled 'I will drown, no-one shall save me.' The Englishmen respected his dying wishes.

Gross exaggeration (*Hyperbole* in the grammar books) used to be the prerogative of Hollywood but now seems to have been taken over by sports commentators. Quite commonplace activities of sportsmen are described as Tremendous (the current favourite), Fantastic or Superb. The trouble is that, if you overdo it like this, you've got nothing left to describe something which really is Tremendous, *etc.*

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That's a lot of rough, tough work.

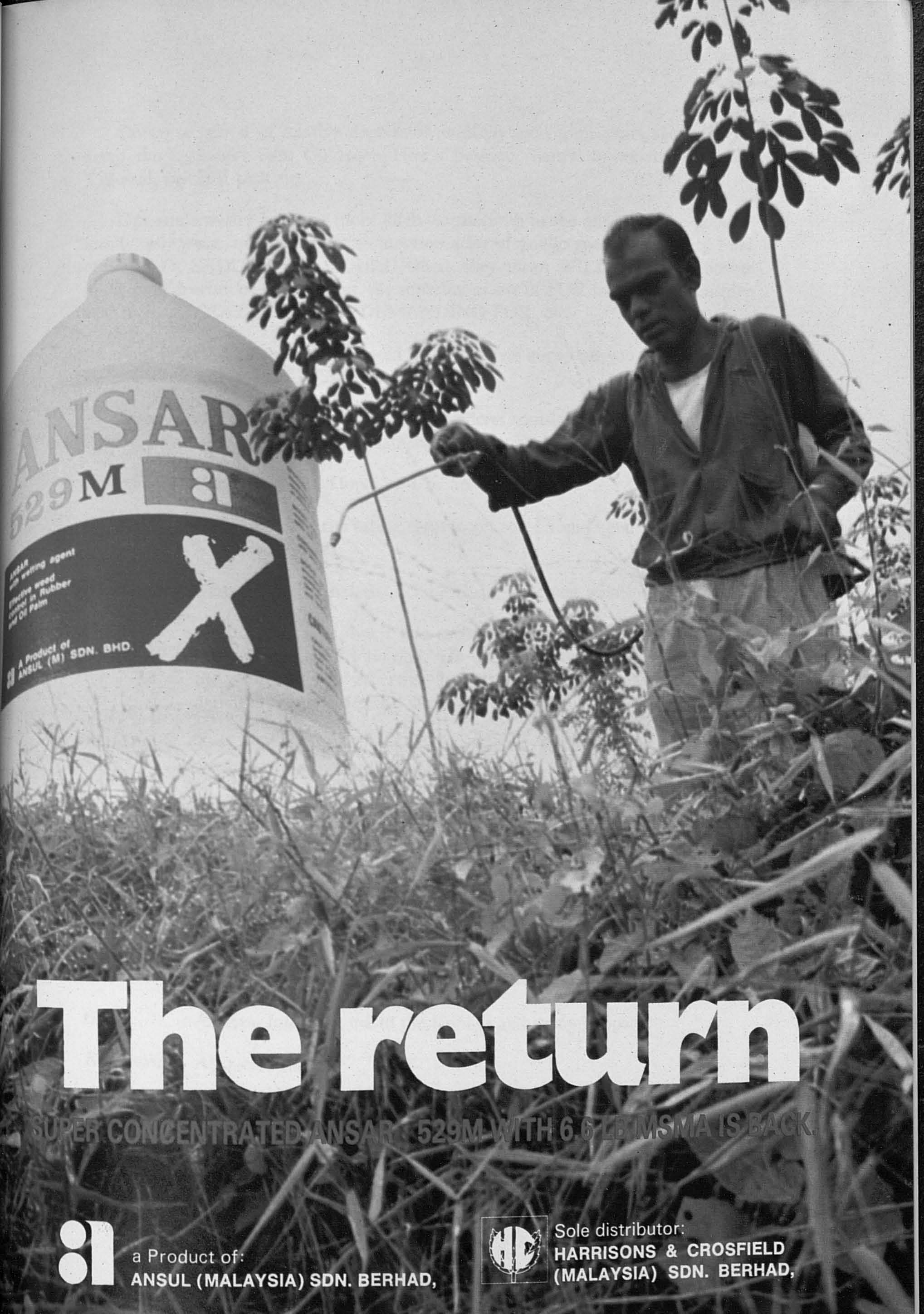
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During a period of relative depression in Hollywood some years ago, a friend asked the legendary Sam Goldwyn 'How's business, Sam?' to which he replied 'Colossal, but it'll pick up.'

Our students are however more likely to succumb to the misuses more popular locally; our press and radio, not to mention a lot of public speakers are very fond of **COULD**, **SHOULD** and **WOULD** where they mean **WILL**. Finally, another Malaysian 'special' of the moment, the superfluous use of **FOR** following a transitive verb as in **REQUESTING FOR**, **DEMANDING FOR**, etc.

And if you, dear reader, are bored by all this, we hope that you will at least be **UNinterested** rather than **DISinterested**.

Now, a little exercise for our overseas readers; translate the following passage from (a variety of) Malaysian English into international English.

Ramasamy: Good morning, Gopal, where are you going?

Gopal: I am just off to the eating shop to get some kopi-O and string-hoppers, how about you?

Ramasamy: I am searching that semi-crack Raju, have you seen him?

Gopal: Not this morning, but I was seeing him last night over by the shop-houses, he was fully boozed. He was telling that he must get back to the estate quickly otherwise he would be in the hot soup and the manager would bombard him.

Ramasamy: That half-past-six fellow is always in the hot soup. He told me last week that the manager had cut his name.

Gopal: I thought he was a friend of yours.

Ramasamy: No-lah! simply hearing his name itself means I am feeling some irritation.

Gopal: Well, we can't stand here all day blocking up the five-foot.

Ramasamy: No, and I must buy some fowls and provisions or I will be in the hot soup, too.

Gopal: Are you following me to the Kopi-O and string-hoppers?

Ramasamy: Also can, man.

Social and Personal

EXAMINATION SUCCESSES

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14 February 1973

Lim Kian Sang	(North Johore)	Passed with Distinction
B Allen-Edmett	(North Johore)	Passed with Distinction
Sharip bin Mamat	(North Johore)	Passed
Chong Tong Soo	(Central Johore)	"
Michael Lee Yee Leang	(Negri Sembilan)	"
Mah Siasa Pong	(Malacca/Muar)	"

Bahasa Malaysia (Rendah)

17 April 1973

Chee Chuan Chai	(Central Perak)	Passed with Distinction
Lim Hong Joon	(Central Perak)	Passed
P Jayaraman	(Selangor)	"
Lim Eng Tee	(West Pahang)	"

Bahasa Malaysia (Lanjutan)

17 April 1973

A Tharmalingam	(Lower Perak)	Passed
----------------	---------------	--------

On leave

- 4810 Abdul Aziz bin Syed Jan Aljaffree (Syed), 79 Jalan Sungei Layar, Sungei Patani, Kedah.
 3637 Alexander, J S, Kingston Cottage, Kingsmuir, Forfar, Angus, Scotland.

Change of address

- 5945 Alias bin Omar, Lambir Land Development Scheme, P O Box 661, Miri, Sarawak.
 3504 Boxall, R, (Datuk), DPMP, PJK, JP, Dovenby Estate, Sungei Siput, Perak.
 5636 Chong Kem Yee, Devon Estate, Merlimau, Malacca.
 5118 Hesselink, J W, c/o BF Goodrich Phil. Inc., P O Box 423, MCC, Makati — Rizal, Philippines.
 5877 Hassan bin Haji Ahmad, Rancangan Pemulehan Gong, Kuala Krau, Mentakab, Pahang.
 3649 Harris, F W, 25 Wilsmore Street, Daglish, Western Australia 6008.
 5641 Lim Seng Mew, Samuel, Layang North Estate, P O Box 515, Kluang, Johore.

- 5376 Lua Kim Hai, Batu Kawan Estate, Simpang Ampat, Province Wellesley.
- 5363 Lee King Wat, Dip Agri, AISP, Sungei Muar Estate, P O Box 503, Segamat, Johore.
- 5123 Mohd Ghazali bin Ariffin, Pegoh Estate, Alor Gajah, Malacca.
- 4587 Nielsen, C B, c/o Mr Svend Jorgensen, Rosendalsgade 15, Copenhagen, Denmark.
- 5537 Pillai, N Krishna, Pulimootil House, Varkala, Kerala State, South India.
- 5795 Pillay, A I, Kok Foh Estate, Bahau, Negri Sembilan.
- 4816 Schubert, D G, Ban Heng Estate, Pagoh, Muar, Johore.
- 5678 Subramaniam, L, AISP, Lanadron Group Estate, Nordanal Division, Panchor, Muar, Johore.
- 5830 Sumathri, G V, Dublin Estate, Karangan, Kedah.
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- 5961 Nair, V D, Kuala Ketil Estate, Kuala Ketil, Kedah.
- 5962 Husin bin Jasin, Lanadron Estate, Panchor, Muar, Johore.
- 5963 Ramli bin Abd Majid, RRI Experiment Station, Sungei Buloh, Selangor.
- 5964 Benjamin, Max, Walindi Plantation, P O Box 4, Kimbe, Papua New Guinea.
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- 5968 Jayaraman, P, Highlands Estate, P O Box 203, Klang, Selangor.
- 5970 Ng Sew Chong, 4 Lorong Ayer Leleh Dua, Hot Spring, Setapak, Kuala Lumpur 14-07.
- 5971 Wong On, Kilang Getah (MRDC), Durian Tunggal, Malacca.
- 5972 Baby, P K Varughese, Teluk Buloh Estate, c/o Flemington Estate, Teluk Anson, Perak.
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- 5986 Ismail Senang, BAL Estates Sdn Bhd, P O Box 135, Tawau, Sabah.

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- 3208 Grant, A R, 17 Abertay, Crescent, Barnhill, Dundee, Angus, Scotland.
- 4550 Kam Cheng Eng, AISP, T1 Lot 7, Taman Cheras, Jalan Cheras, Kuala Lumpur.
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| 5854 | Hansen, T R | (Overseas) | |

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- 4755 Selvarajah, N, 41 Jalan Limau Nipis, Bungsar Park, Kuala Lumpur 22-15.
- 5827 Low Ah Kaw, T D & M Berhad, P O Box 10, Kemaman, Trengganu.

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Palm oil chop

Ingredients

- 1 chicken
- 1½ cups palm nuts
- 1 cup groundnuts
- 2 onions
- Seasoning
- 1 lb Spinach
- 1 small tin prawns
- 12 okras (ladies fingers)
- 4 hard boiled eggs
- 2-3 large green peppers
- 4-5 aubergines (brinjal)

Method

Prepare the chicken, cutting it into joints. Wash the palm nuts, cover with cold water and boil for 1 hour. Strain off the water, crush the nuts, return to the pan with enough fresh water to cover, mix well, strain carefully and put on the heat; boil for about ½ hour. Grind the groundnuts well, mix with a little water to make a paste and add to the soup little by little, taking care not to make it too thick.

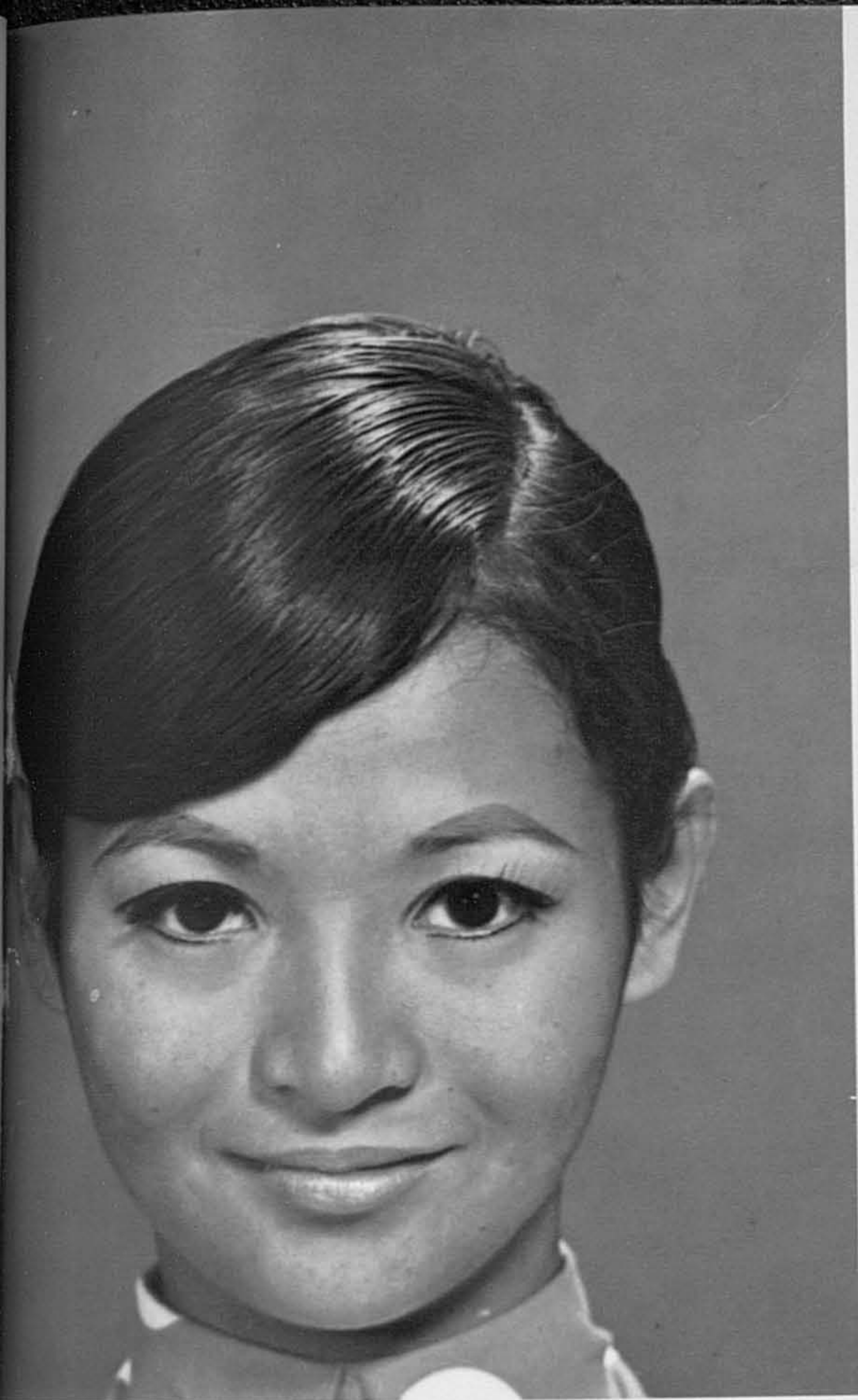
Leave to simmer slowly. Add the chicken to the soup with the onions, pepper and salt and continue cooking until the chicken is cooked and the palm oil floats on top of the soup; skim carefully and keep simmering gently. Meanwhile, cook the spinach in another saucepan, strain, chop finely and add to the soup.

The prawns, okras and aubergines are cooked in separate pans. When the soup is ready all the ingredients are mixed together with the hard-boiled eggs in a casserole. Crush the green peppers and serve in a separate dish. Hand round coconut, fried bananas, pawpaw, pineapple, orange and ground ginger as side dishes.

Note: Small pieces of dried fish are often used in place of the prawns in Nigeria

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