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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: —

	During the calendar year in which eligibility for membership occurred and the 4 succeeding calendar years.	Subsequently.
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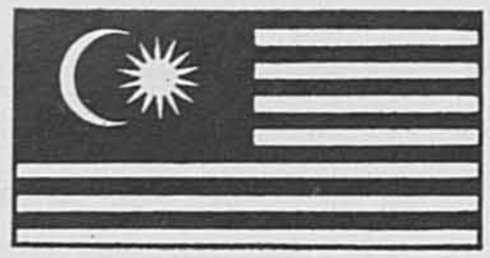

We record with the utmost pleasure
the visit to Malaysia by

HER MAJESTY QUEEN ELIZABETH II

and

THEIR ROYAL HIGHNESSES
THE DUKE OF EDINBURGH & THE PRINCESS ANNE

and we thank the Malaysian and British Governments for the splendid arrangements whereby it was possible for so many people to see and to meet the Royal Visitors.

All members of the Incorporated Society of Planters past and present, in Malaysia and overseas, offer Her Majesty their sincere good wishes for a continuing long and happy reign.

February — March 1972

Editorial:

THE TRAVELLER IN MALAYSIA

A lot of good sense seems to have been talked at the recent Conference of the Pacific Area Travel Association in Kuala Lumpur. Not all of it could have been entirely palatable to the Conference's Malaysian hosts, and we refer in particular to the warnings expressed about the proliferation of luxury hotels in the city, and the scarcity of cheaper, middle-class hotels, or motels in the country generally. One delegate, addressing the Conference on "An Atlantic view of the Pacific", urged the Government and the tourist organisations to think of the less affluent "who are scared stiff at the sight of a doorman's epaulettes". He wanted to see "hotels for indigenous travellers converted for overseas visitors and low cost facilities like camp sites and Government Rest Houses encouraged".

It is to be hoped that these remarks will help draw attention to the woeful inadequacy of many of the country's rest houses, not only from the tourist's point of view, but also from that of those who live here and are sometimes obliged to make use of them. We say "obliged", since few people would stay at the average government rest house if there were better accommodation at hand. A member whose job takes him over most of the country and into many of Malaysia's rest houses has sent us a catalogue of ills he continues to find at them, which would fill this page. It ranges from missing bath plugs and threadbare, undersized towels, to the use of rancid cooking-oil and inadequate bar stocks.

Not all Malaysia's rest houses are bad, but very few of them are entirely satisfactory. One of the more pleasantly situated and managed is that at Lumut, on the Perak coast, but even here the ambience of an otherwise very attractive setting is spoiled by the heavy lorries which thunder past on the waterside road in the early hours of the morning. Such traffic could easily be re-routed by the inland road.

Tourists are attracted by features of other countries which are different from their own, and it would appear that Malaysia is out to attract visitors from America, Europe and southeast Asia in (possibly) that order. After the more obvious attractions *i.e.* the natural and cultural aspects, the most important item, whatever the country, is accommodation. Especially to be regretted therefore is the replacement of the old-style, mostly wooden rest houses by concrete monstrosities possessing not a shred of native character or charm. Most of these old buildings are still sound and their decoration and amenities could easily be up-dated to suit the modern traveller. And why not build new ones of wood also? For a country rich in timber and with no lack of skilled artisans Malaysia should be more than able to cater for the needs of the visitor, indigenous or from overseas, who wishes to relax in an atmosphere typical of this still lovely land.

Foreign tourists and travel operators will inevitably have noted the huge success of the visit to Malaysia of the British Royal Family. It is now up to all those concerned with tourism to exploit this publicity to the full, aiming especially at the traveller with a limited budget and a desire to see and experience the true Malaysia.

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Planter, Kuala Lumpur **48:** 32–38 (1972)

Prospects for oil palm products in Malaysia

A. PRAMANIK[1]

SUMMARY

By 1974 the production of crude palm oil in Malaysia is estimated to reach 920 000 tons per annum, compared with the 1970 production of about 420 000 tons.

It is desirable that Malaysia produces her own refined palm oil, palm kernel oil and fats, these being extensively used as cooking oil, margarines, shortening, vanaspati, detergents, soap, glycerine etc. It would also be possible to produce other end-products at a competitive price for export.

Oil palm growers and other interested parties should take practical steps to help the processing industry and its marketing and shipping facilities, in order to achieve both world-wide recognition of Malaysian palm oil products and to maintain an advantage over the crude palm oil and vegetable oils sold by other countries.

INTRODUCTION

There is a great potential for industries processing palm oil and palm kernel in Malaysia. There is scope for the expansion of the oil palm industry in view of the fact that palm oil at present occupies only about 3% of the total world production of vegetable oils and fats. With an ever-increasing world population and rising standard of living in the developing countries, the demand for oils and fats will increase.

Malaysia has emerged as the world's largest producer and exporter of crude palm oil within the last few years. The average yield of palm oil is 1.8 tons per acre—among the highest in the world.

Tables 1 and 2 show the world's major producers of palm oil and palm kernel.

*Table 1. Commercial production of palm oil (thousand tons)**

	1961	*1962*	*1963*	*1964*	*1965*	*1966*	*1967*	*1968*
Malaysia	93	106	124	120	146	183	213	261
Nigeria	173	129	149	148	164	130	32	4
Congo (Kinshasa)	220	225	220	205	160	165	200	240
Indonesia	143	139	146	158	160	149	171	177
Others	57	57	67	76	78	77	95	114
Total	686	656	706	707	708	704	711	796

[1] Central Oil Palm Industries Berhad.

* Extracted from *Vegetable oil and oil seeds review 1969.* London: Commonwealth Secretariat.

*Table 2. Commercial production of palm kernel in principal countries (thousand tons)**

	1961	*1962*	*1963*	*1964*	*1965*	*1966*	*1967*	*1968*
Malaysia	24	28	30	30	34	43	50	62
Nigeria	430	358	414	401	449	415	218	190
Siera Leone	60	63	53	52	49	45	36	54
Congo (Kinshasa)	125	115	90	120	95	100	105	130
Others	237	231	243	241	232	221	221	232
Total	876	795	830	844	859	824	630	668

* Extracted from *Vegetable oil and oilseeds review, 1969*. London: Commonwealth Secretariat.

Palm oil export

Malaysia at present exports about 90% of its crude palm oil production and about 25% of palm kernels. It is presumed that the total amount of palm kernel will be locally consumed for the production of palm kernel oil by 1972/3. The palm oil and palm kernels are later processed for various uses: cooking oil, margarines, shortenings, vanaspati (a substitute for ghee) soap making, etc. Recently the government has encouraged the palm oil industry by granting pioneer status for processing palm oil into edible/refined oils and fats, but there is more to be done to encourage the industry, especially in marketing and shipping facilities. The following data on palm oil and kernel production are relevant (*Tables 3 and 4*).

*Table 3. Acreage, production, export, earnings and local consumption of palm oil in West Malaysia.**

	1967	*1968*	*1969*	*1970*
Total acreage of oil palm	401 962	497 524	598 153	680 000
Mature acreage	186 038	232 031	290 328	—
Immature acreage	215 924	265 493	307 825	—
Total palm oil production (tons)	222 158	278 444	345 601	422 614
Average increase in palm oil production over previous year (%)	—	25.3	24.1	22.3
Total export of palm oil (tons)	171 177	263 691	325 583	367 384
Estimated local consumption (tons)	54 981	14 753	20 018	55 230
Earning value f.o.b. (M$, thousands)	110 707	116 804	142 835	246 158
Quantity exported (%)	80	96.5	94	86.9
Average price f.o.b. (M$ per ton)	625	443	439	670

* Extracted from Bank Negara Annual Report and statement of accounts, 1970.

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*Table 4. Production, export, earning and local consumption of palm kernel in West Malaysia**

	1967	*1968*	*1969*	*1970*
Production of palm kernel (tons)	48 318	58 724	73 364	85 819
Percent increase of palm kernel production over previous year	—	21.5	25	17
Export of palm kernel and nuts (tons)	23 266	32 063	35 522	22 518
Earning value f.o.b. (M$, million)	8.7	14.2	11.9	8.9
Average price f.o.b. (M$ per ton)	374	443	355	395
Local consumption of palm kernel and stocks (tons)	25 052	26 661	37 842	36 709
Amount exported (%)	48.2	54.6	48.4	25.77
Amount consumed locally (%)	51.8	45.4	51.6	74.23

Note: It is encouraging that Malaysia for the first time exported palm kernel oil valued at $2.1 million in 1970 (average price $938 per ton).

Imports of oils and fats

Malaysia imports oils and fats (*Table 5*) to the value of M$8.8 million. Much of these imports could be replaced by local processing of palm oil and kernels.

*Table 5. Imports of fats and oils into West Malaysia in 1969**

	Quantity (tons)	*Value (M$ thousands)*
Tallow for edible purposes	1 957	1 173
Tallow for other purposes	5 308	2 580
Palm oil	63	42
Soya bean oil	866	710
Groundnut oil	1 913	2 514
Coconut oil for domestic uses	1 403	1 176
Palm kernel oil	38	42
Other fixed vegetable oils	21	425
Other prepared edible fats of vegetable origin	105	123
Prepared edible fats (code 091409)	25	37
	3 809	8 820

Quality of crude palm oil processing

The quality of the crude palm oil is dependent upon f.f.a. (free fatty acid) content, impurities, peroxide value, moisture, bleachability, etc., of which f.f.a. and bleachability are of prime importance. Crude palm oil is usually below 5% f.f.a.

* *See* footnote to *Table 3*.

Good palm oil (crude) must conform to the following standard:

Water	0.1%
Dirt	0.01%
f.f.a.	2%
P.V.	± 2% (peroxide value)

It should have good 'bleachability', low 'Wesson loss' and also lowest possible metal content. The refining process is complicated, various grades and specifications being laid down by the consumers, depending upon the industry and the products to be made. Various countries impose a number of additional restrictions, for palm oil is largely used in the preparation of margarine.

Different types of the same product require different grades of oils and fats, *e.g.* there are many types of margarines used for cakes, pastries and table uses (refrigerated and non-refrigerated type). At present, very little marketing data are available.

Palm oil has a large expanding market as a cooking oil. However, its uses are limited, for it is not stable at low temperatures and its use is largely dependent on food habits. If palm oil could be refined and stabilised at low temperatures, it would probably replace many other vegetable oils which are presently used as cooking oils. All oils need to be refined and deodorised for edible purposes. Refining removes f.f.a., phosphatides and other impurities.

The demand for higher quality crude oil is increasing and it is encouraging to see that a number of estates in Malaysia are producing palm oil called 'SPB' (special prime bleach) which may be compared with 'SMR' rubber in the rubber industry. High grade palm oil has been produced in the Congo for several years. *Table 6* provides analytical comparison of the high grade (SPB) and ordinary palm oil.

Table 6. Specifications of SPB and normal palm oil (Jacobsberg 1969)

	SPB.	*Normal*
f.f.a. (as palmitic acids) %	1–2	3–5
Moisture (%)	< 0.1	> 0.1
Impurities (%)	< 0.002	> 0.01
Iron (p.p.m.)	<10	>10
Copper (p.p.m.)	approx. 0.2	0.2
Iodine value	53 ± 1.5	45–56
Carotone (p.p.m.)	approx. 500	500–700
Tocopherol (p.p.m.)	approx. 800	400–600
Bleachability	< 2.0 R	> 3.5 R
(standard Bleaching Test)	20 Y	25 Y

Refined palm oil has a high cloud point (35°–38°C) and cannot be sold as liquid edible oil in countries where the ambient temperature drops below this level. For such an outlet the quality of high melting point glycerides must be reduced. Among the different processes available, the most important ones are (a) Conventional fractionation; (b) Fractionation by means of volatile solvent; and (c) Fractionation by surface active agents (*Table 7*).

Table 7. Percentage yield obtained by different processing systems

	Conventional process	*Fractionation by solvent*	*Fractionation by surface active agents*
Refined oil (olein) (kg)	44.9	69.5	65.3
High melting point oil/refined fat (stearine) (kg)	45.1	25.0	28.0
Soap-stock/acid oil equivalent (kg)	8.0	—	4.7
Distilled fatty acids (kg)	—	5.3	—
Actual losses (kg)	2.0	0.2	2.0

Palm kernel processing

Palm kernel oil is commercially extracted at the rate of 46–50% of kernel oil and 50–54% of palm kernel cake/meal. The price of palm kernel and palm kernel oil is normally close to that of copra and coconut oil, since yield, lauric acid content and uses are similar. The price of palm kernel cake is dependent upon the amount of oil left in the cake, which is used as an animal feed. West Germany uses large quantities of palm kernel cake/meals, and imported over 230 000 tons of palm kernel meal in 1969. The average price of Nigerian palm kernel cake fluctuated in 1968 between M$292 and M$237 per ton.

DISCUSSION

Although there has been a rapid growth in oil palm planting, little attention has been paid to the technological aspects of this industry, particularly in recommending more efficient methods of refining palm oil and palm kernel oil and other products. It is estimated that by 1974 the production of crude palm oil and palm kernel will be about 920 000 tons and 184 000 tons respectively. Assuming an f.o.b. price for crude palm oil of $700 per ton and for palm kernel of $380 per ton, the earnings will be $644 million and $70 million respectively. At present, Malaysia exports about 90% of its crude palm oil and a large proportion of its palm kernel. There is a need to process the crude oil to refined oils and fats and other end-products.

Processing the estimated 1974 production of 920 000 tons of crude palm oil would give a total f.o.b. value of 766.5 millions dollars if fractionation was by the volatile solvent method, or 775 millions dollars if fractional crystallization were used (*Table 8*). Processing locally the estimated 184 000 tons of palm kernel would give an f.o.b. value of 91 million dollars. The total f.o.b. value of the locally processed products would be approximately 860 million dollars—a theoretical net gain (excluding the cost of processing) of about 150 million dollars.

Table 8. Value per 100 tons crude palm oil or palm kernel of refined products using fractional crystallization or fractionation by volatile solvent as extraction methods

Product	Value ($ per ton)	Processing method: Fractional crystallization — Percent of total	Fractional crystallization — Value ($ f.o.b.)	Volatile solvent — Percent of total	Volatile solvent — Value ($ f.o.b.)
Palm oil					
Refined edible oil	900	66.71	600.19	73.15	658.35
Refined fats	800	28.59	228.72	21.85	174.80
Acid oil	300	4.50	13.50	—	—
Total	—	—	842.41	—	833.15
Palm kernel					
Palm kernel oil	915	—	—	46	420.90
Palm karnel cake	135	—	—	54	72.90
Total	—	—	—	—	493.80

Benefits of processing refined oils and fats

1. The project would use mainly local raw materials.
2. It would earn the country at least another $150 million in foreign exchange by 1974.
3. Diversification of the country's economy and de-centralisation of the industries to the rural areas, with increases in employment prospects, would result.
4. Profit margins would be high.

Market prospects

At present, the consumer countries are processing crude palm oil and palm kernel to manufacture a wide range of end-products. Therefore, we may not find a ready export market to consume all the refined palm oils and fats as well as for refined palm kernel oil. But once we can guarantee that our products conform to consumers' requirements there is no reason why we should not quickly capture a market.

It is possible for palm kernel oil to be mixed with other vegetable oils without harmful effects. In fact, refined palm kernel oil could be used as a cooking oil, and may be a better substitute than many other edible oils. There is a tendency to mix palm kernel oil with pure coconut oil to fetch a better price. Therefore there should be strict analytical control on the export of oils, to maintain Malaysia's reputation and the good will of the consumer.

Potential oil palm products

Soap stock has no ready market in Malaysia today, but it could be easily converted to acid oil with little cost, and sold profitably. Besides the manufacture of edible oils and fats we could produce a wide range of products with good export prospects. The cost of production would be very low since we have the required raw materials as well as labour and other facilities. The following products can be manufactured from palm oil or palm kernel oil: Hydrogenated fats, margarine, hydrogenated fatty acids, fatty acid powder, stearine, olein, detergent, pure glycerine, soap, feed meal compound, etc.

With the vast increase in palm oil production in East and West Malaysia, it is essential to modernise handling and transportation facilities. Special tankers for bulk palm oil shipment should be equipped with carefully-controlled heating arrangement and the tanks coated with epoxy-resin paints to prevent metallic contamination. Equally important is the provision of adequate storage facilities, both in Malaysian ports and consuming countries, to facilitate the handling of thousands of tons of oil per day. The quality and care of the oil does not end with its despatch from the factory; *it should be guaranteed right up to the discharge at the consumers' installation*. Consumers must be guaranteed prompt delivery of high quality products.

It is essential to have close co-operation between the palm oil trade and shipping companies in the face of competition not only from other producing countries but also from other oils and fats.

CONCLUSION

It is imperative that the authorities, while encouraging oil palm planting, should take practical steps to co-ordinate their efforts on research and processing methods, quality control, marketing and shipping facilities, without which it will be difficult to achieve world-wide recognition in respect of both quality and delivery of good products. The Oil Palm Growers' Council, MARDI (Malaysian Agricultural Research & Development Institute), NISIR (National Institute for Scientific & Industrial Research) and other competent organisations should be geared to deal with the industrial and technological aspects of processing palm oil.

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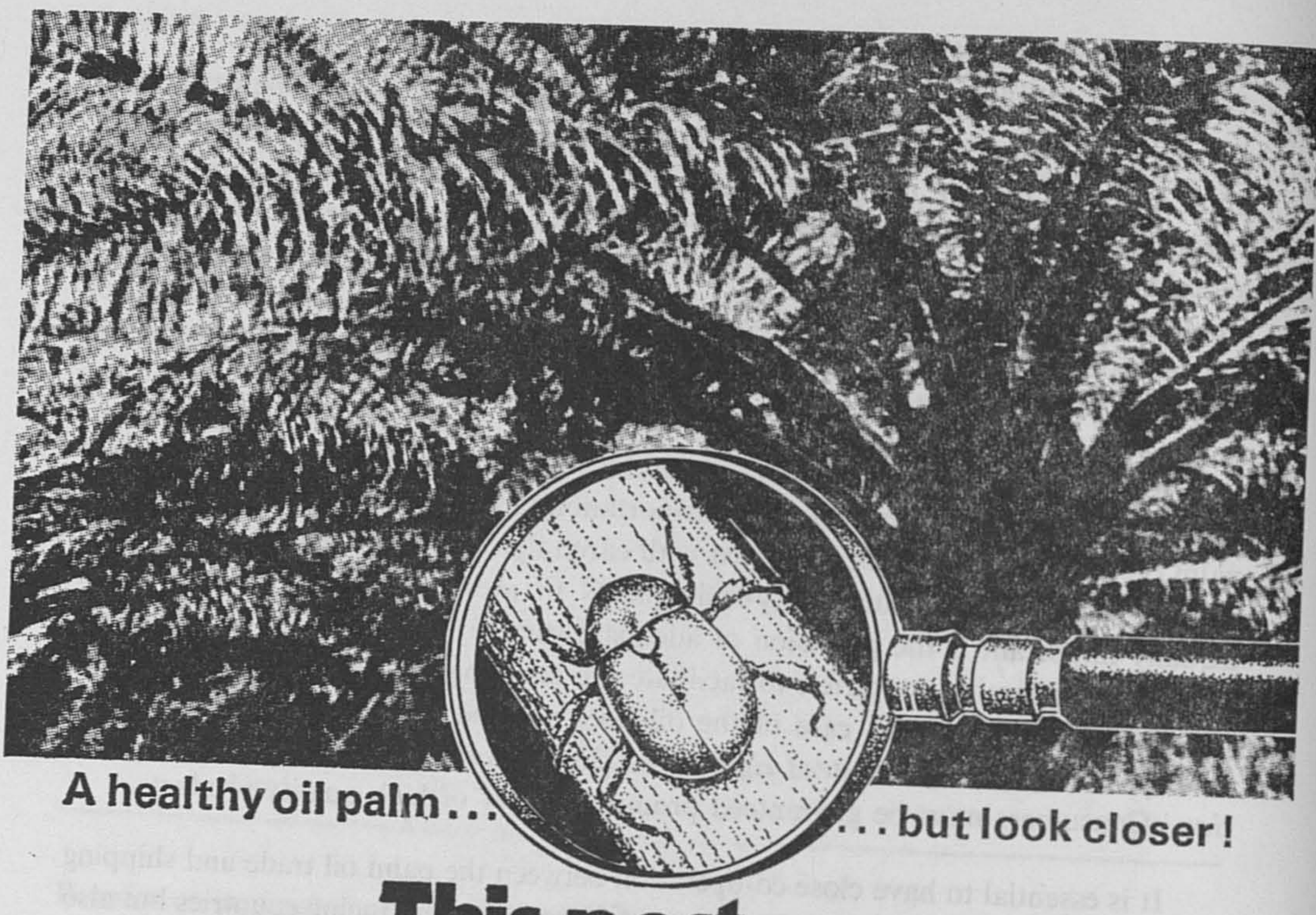

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Pesticides and the Environment

Adapted from a booklet of the same title published by the Canadian Agricultural Chemical Association, to whom due acknowledgement is made. A section entitled Regulation and Control *has been omitted as having specific relevance only to the Canadian scene.*

INTRODUCTION

Because man has been able to adjust his environment to his needs, rather than the other way round, he has not had to submit totally to the harsh discipline nature imposes on other species. More than this, he has often been able to tailor the environment to his comfort and convenience.

For most of this modern era, people have been aware only of the apparent material benefits resulting from this capability. Now, however, they have become conscious of the fact that environmental control, if not properly exercised, can also produce environmental problems.

Pesticides are one of the many tools man uses to protect himself, to increase his productive power and mobility or to increase his comfort and convenience. The extensive use made of these tools—including pesticides—is now being questioned by concerned and frightened people.

NO CULTISTS, PLEASE

On May 14, 1970, the Secretary-General of the United Nations, U Thant, gave an address at the University of Texas on "Human Environment and World Order." Throughout the speech he urged the establishment of "a global authority for the protection of the environment" which would be closely associated with the United Nations.

In this context, three quotations from the speech have a significant bearing on any discussion about pesticides:

> ...we face a rapidly increasing balance between the life-sustaining systems of the earth and the demands, industrial, agricultural, technological and demographic, which its inhabitants put upon it. This is an unprecedented challenge to all earth-people here and now...

Pointing out that the environmental problem is becoming the most widely discussed and written about question of our time throughout the world, the Secretary-General added:

> This sudden interest and concern over the environment cannot be allowed to be merely a passing whim, and it is also essential to avoid any temptation to make the problem into some sort of cult. Clear and honest thinking, organization and hard work are vital...

The speech dealt with environmental problems in general terms. There was, however, specific reference to pesticides:

> Obviously, the environmental problem looks very different according to the state of development of the country one happens to live in, and this makes a global approach all the more essential. A simple example is the question of DDT, the use of which is vitally important to the agricultural development of a number of developing countries at precisely the moment when some advanced countries are taking steps to curb, or even abolish, its use...

The imbalance between the earth's life sustaining systems and the demands we place upon them—great as it is already—is bound to increase. It will increase even if world population growth, through some miracle of common sense, is held to a reasonable rate. For, even as things are now, we are not producing enough food for everyone. Dr. Georg Borgstrom, Michigan State University Department of Food Science, states:

> If all the food in the world—including surplus stores—were distributed equally and each human received identical quantities, we would all be malnourished. If the entire world were fed on the United States level, all available food would be only enough to feed less than half the human race.

With the Food and Agriculture Organization of the UN dedicated to the eradication of hunger within 20 years, and the developed nations aware that we cannot tolerate a situation where most of the people in the world are underfed, it is obvious that food production must be dramatically increased. It follows that we cannot afford to support pest populations—plant, insect and disease—even on the present scale.

Chemical pesticides are not the only possible approach to this second problem. Natural predators, artificially induced pest diseases, sterilization of segments of pest populations by radiation or chemicals, the development of pest-resistant strains of produce, and even a lowering of our standards of food "quality" are all actual or potential ways of helping to control pests—or of compromising with them.

But pesticides, used intelligently by themselves or integrated with any of the above, are still more effective and more economic than all the alternatives. In fact, with our existing technology, our requirement for intensive agriculture and our concrete and asphalt encroachments into the breeding areas of the pests' natural predators, chemical pesticides are necessary if we are to maintain adequate control of pests.

Even if the physical and economic problems of food distribution could be solved, the advanced food-producing nations of the world do not now have the capability of feeding everyone. The ultimate solution must include increased food production in the developing nations themselves.

Fertilizers, equipment and better farming methods can contribute to this solution. But spectacular increases in pest populations can be expected to follow the use of better agricultural technology; for pest populations respond with frightening vigor to increases in their food supply. Scientific control of these pest populations will have to accompany the introduction of new food production techonology.

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photo: Dozer/Grader at work on the Sungei Tong Oil Palm Estate, Trengganu.

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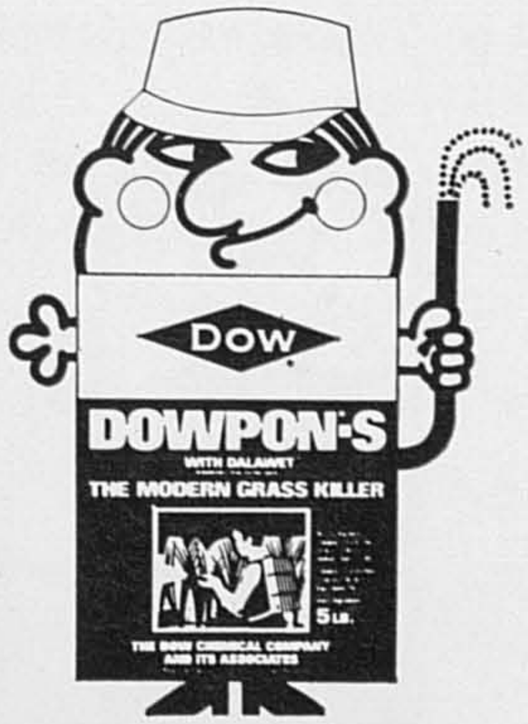

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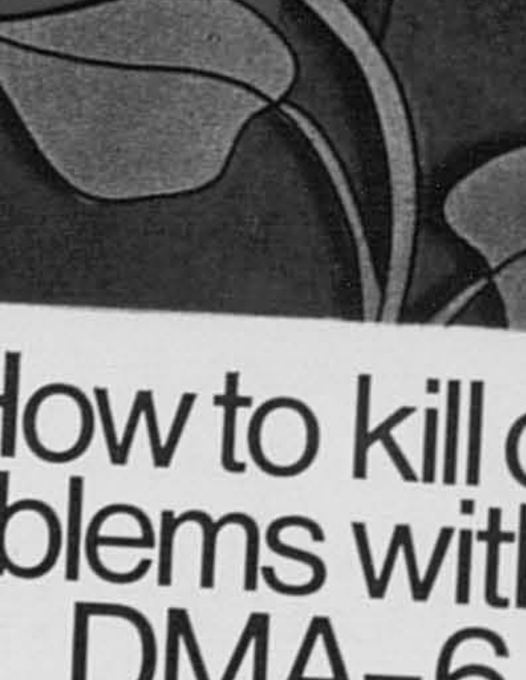

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The Food and Agriculture Organization estimates that, at present, 30 per cent of all the food south-east Asian countries produce is lost to spoilage and pest infestations— an indicator of the vital role pesticides will have to play in the improved agriculture of the developing nations. This is part of the role the Secretary-General of the UN described (in reference to DDT) as "vitally important to the agricultural development of a number of developing countries."

THE COMMON GROUND

The onus for "clear and honest thinking" about the role and the use of pesticides is on all of us: the agricultural chemicals industry, its critics, government and the public. Though it has been obscured by emotion on all sides, there is, fortunately, a surprisingly large area of agreement among us on the facts about pesticides; the problems and the advantages associated with their use and the measures required to solve the problems while keeping the advantages.

Acceptance of the fact that there are these areas of agreement is an important first step in meeting the challenge described by the Secretary-General of the UN. For these areas provide the basis for objective investigation and, where required, coordinated remedial action.

The first point of general agreement is that pesticides are necessary—that without the help of agricultural chemicals we cannot maintain even the present inadequate world standard of food supply, let alone improve that standard.

The best and dependably objective documentation for this statement lies in the report of the Mrak Commission which was set up by the U.S. Department of Health, Education and Welfare in April, 1969, to report on "Pesticides and their relationship to Environmental Health."

The Commission, staffed by a large number of scientists representing government, universities and industry, examined scientific reports on over 600 active pesticidal chemicals formulated in over 60 000 ways, which are used in the U.S. Its initial report was presented in November, 1969.

The introduction to the report begins:

> Our society has gained tremendous benefits from the usage of pesticides to prevent disease and to increase the production of foods and fibers. Our need to use pesticides will continue to increase for the foreseeable future. However, recent evidence indicates our need to be concerned about the unintentional effects of pesticides on various life forms within the environment and on human health...

In his letter of transmittal to the Secretary of the Department, the Chairman of the Commission, Dr. Emil M. Mrak, included this statement:

> Chemicals, including pesticides used to increase food production, are of such importance in modern life that we must learn to live with them...

The second point of agreement is that pesticides can be dangerous to the environment and to human health unless they are used by informed, intelligent people as directed by the manufacturers and by law.

Although the most extreme critics of pesticides may not accept the last part of that statement as making any difference, the fact is, it makes all the difference.

Pesticides are poisonous. They are developed to be poisonous to specific pest types—soil pests, leaf and foliage feeders, diseases, weeds—but some are also toxic to other species of life including beneficial parasites and predators and humans. Although technology has reached a stage where pesticides have their maximum effect on the target species, it has not reached the stage where a compound can be made so specific to one target group that it can be used without caution and without respect.

The requirements imposed on the manufacturers by law before a pesticide can be registered are described later; but even these requirements cannot protect non-target species, people, or the total environment from the results of thoughtless, suicidal or idiotic use of these chemicals or casual licensing requirements which permit unqualified applicators to offer their service to the public.

Pesticides are not alone in this situation. There are similar regulations and requirements respecting the use of fire, guns, explosives, medicines and automobiles. There is a similar reliance on the user to be informed and to exercise intelligence, for his own safety and that of others, in storing his food to protect it from botulism, in his use of alcohol, in his consumption of non-prescription drugs, and on government in licensing the use of potentially dangerous equipment—including the automobile.

Common table salt can, and has, killed people when used in excessive quantities.

The onus is on the agricultural chemicals industry—and the industry fully accepts the responsibility—to show how every pesticide it markets can be used safely. But these requirements on the industry cannot provide the required protection to the environment if users, private and commercial, ignore their own responsibility in this respect.

The third area of agreement is an extension of the second. Like any of the powerful and potentially dangerous tools or techniques man employs, modern pesticides should be used only when they are necessary to protect human health or food supply.

In an economy that has raised personal convenience and comfort to the status of articles of faith and which has, moreover, come to expect ever new extensions of the "wonder drugs," we have come to regard any kind of inconvenience as intolerable. The indiscriminate and unwarranted use of pesticides or any powerful tool to eliminate minor inconveniences is comparable to using morphine to relieve a simple headache. This practice may well have contributed significantly to the environmental problem.

What is of particular importance to the agricultural chemicals industry is the fact that the practice has drawn criticism to it which should be directed to the uninformed or irresponsible users of pesticides.

The documentation for this is also found in the Mrak Commission report, which, it should be emphasized, holds no special brief for the agricultural chemicals industry. In its summary and conclusions, the Commission's Subcommittee on Contamination states:

> Much contamination and damage results from the indiscriminate, uncontrolled, unmonitored and excessive use of pesticides, often in situations where properly supervised application of pesticides would confine them to target areas and organisms and at the concentrations necessary for their beneficial use without damage to the environment. Research investigations, demonstrations and monitored operations reveal that the careful application of many of the pesticides...can be expected to reduce contamination of the environment to a small fraction of the current level without reducing effective control of target organisms.

The extent of agreement on a fourth point may be questioned at first, but agreement exists nonetheless.

Pesticides have been incorrectly blamed for many disasters in the environment which in fact arose from other causes. Judgments of this sort, based on emotion or supposition rather than fact, are not in the public interest and inhibit the attainment of an appropriate balance among food production requirements, chemical pest control and protection of the environment.

There have been many instances of this in both Canada and the U.S. during in 1960's—for example, the massive killing of fish in the Mississippi and Missouri Rivers and of ducks near Centre Island in Toronto Harbour. In these cases, the tragedies were incorrectly linked with the use of pesticides to control weeds or insects in the area. Scientific investigation subsequently found the deaths resulted from other causes.

In fact, fish kills were reported long before the invention of pesticides. One of the earliest records in the U.S. is in the Potomac River in 1608, another is in the coastal area between Cape Cod and Chesapeake Bay in 1882.

Sudden changes in the temperature of the water and depletion of free oxygen when storms sweep masses of decaying vegetable matter into the water are among the major natural causes of these large killings of fish. Man contributes too, of course. Some pesticides are highly toxic to fish, and they can get into water by accident or if they are used carelessly. But industrial waste, bilge oil and sewage have the same effect and their infusion into the water is usually continuous.

The difficulties created by this cult of blaming pesticides for every natural tragedy are also referred to in the Mrak report:

> We must protect the health and welfare of the public. That is the basic charge of the (Health, Education and Welfare) Department. But it is not in the best interest of the public to permit unduly precipitate or restrictive action based only on anxiety...

The fifth point of agreement: Because of the extensive research and testing required before a pesticide can be marketed, scientific knowledge of the pharmacological and toxicological properties of pesticides is as great as it is for any class of chemicals. This opinion was endorsed in 1969 in a report by a panel of scientists of the U.S. National Academy of Science following investigations of insect-pest management and control.

Every pesticide on the market represents a development investment of, on the average, five years' time and $8 million by the manufacturer. In addition, hundreds of highly skilled and experienced scientists are involved in the development process. Scientists in government and in agricultural colleges double check scientists in industry. Scientists in the field double check scientists in the laboratory.

Before any pesticide goes on the market, the manufacturer must prove with voluminous evidence that the chemical is useful and that it can be used in growing, storing or transporting food crops without hazard to humans when used as directed.

And in the enormously complex area of environmental and ecological research, the accumulation of knowledge is accelerating. Continuing investigations are carried out by the Canada Department of Agriculture in laboratories throughout the country. In London, Ontario, for instance, the Soil Pesticides Section of the Research Institute is developing important data on the behaviour of a wide range of insecticides in soil, how the type and condition of soil affect performance and degradation of the chemicals, what happens to residues, absorption by plants, how insecticides affect micro-organisms and other minute creatures that fill important roles in creating and maintaining a healthy environment, and how insecticides move from soil to water. This and other information provide criteria for the agricultural chemicals industry in developing pesticide formulations for registration.

Because potential hazards to the general environment cannot yet be controlled or eliminated with the same certainty as hazards to human health, it's in this area that, for the moment, the benefit/risk relationship has to be considered in determining what pesticides may be used, when they may be used and how they may be used.

This is not the ideal, of course, but the reassuring fact is this research helps define the environmental risk and determine whether it is acceptable.

To the reassurance provided by this large and growing fund of knowledge should also be added the manufacturer's legal liability and his social and moral obligations. The force of the latter should not be under-rated.

A sixth point of agreement is that while persistent pesticides are a part of the general problem of environmental contamination, they are a small part and a readily controllable part of that general problem.

The intensity of the anxiety about pesticides has been increased by the anxiety about pollution generally. In dealing with the role of pesticides in this respect—and doing so in a way which will meet both environmental and pest control requirements—a first step is to differentiate between residual pesticide and general pollutants.

The main point of difference is that while sewage, industrial waste, fumes, smog, garbage, litter are by-products of some other activity, pesticides are not. They are deliberately developed, tested and manufactured for a specific economic purpose and they are deliberately—and should be in all cases, scientifically—administered for that purpose. Their infusion into the environment, therefore, is directly controlled by human beings both as to concentration and frequency, and their composition is directly and precisely controlled. Human beings exercise little or no such control over pollutants which are created as by-products of other activities and are infused into the environment as waste by-products.

(to be concluded)

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INTERNATIONAL MINERALS & CHEMICAL CORPORATION

The monthly crop

The Annual General Meeting of the Society will be held on Saturday 15 April at Commonwealth House, headquarters of the Malaysian Branch of the Royal Commonwealth Society. This is situated at Damansara Heights, Kuala Lumpur and a sketch map showing how to get there will be published in the March issue. As usual the AGM will be followed, after a generous interval for refreshment, by the Annual Luncheon, and a reservation form appears at the front of the Supplement to this issue.

Commonwealth House is a pleasant place and admirably suited to the Society's purpose. There is a bare chance that their new swimming pool might be finished by mid-April but we're not counting on it.

It is only natural that residents of Kuala Lumpur should begin to notice things which they might not otherwise bother about, but now see through the eyes of PATA delegates. That extraordinary pile of open-sided cubes for example, which greets the visitor at the airport roundabout. When a PATA delegate asks "What is it going to be?" it's a moot point as to who is the more embarrassed, the questioner or the questioned, when it is revealed that the thing is finished. Nature lovers must be overjoyed with it, convinced as they will be that it is a sort of Mappin Terrace for birds. On a less sardonic note however, and as a serious suggestion for improving Kuala Lumpur's image, isn't it about time that the policeman in patrol cars and on point duty were relieved of those steel-helmets? If this headgear is a legacy of the 1969 troubles it ought speedily to be abandoned. Tranquillity is all, and the city of Kuala Lumpur has no need to fear for the safety of its constabulary.

The Department of Agriculture of the British Solomon Islands Protectorate is anxious to obtain seed of the leguminous cover *Desmodium heterophyllum*. If any member has such seed available the Department would be grateful if he would contact the Director of Agriculture, Honiara. Realistic costs of seed collection, treatment and air freight will be met by the Department.

The Standards Institution of Malaysia is growing fast, and the ISP has official representatives on a number of the SIM's Technical Committees. To date, these are:

Vegetable Oils and Oleaginous Seeds and Fruits	Mr M A Anderson (Chairman)
	Mr I W Cooper
Beverages	Mr J B Owen Jones
Propagation Materials	Inche Mokhtar bin Hashim
Pesticides and Weedicides	Dr D E Barnes

A paper offered us for publication had as its subject various hybrids of cocoa. The first draft had so many spelling and typing errors that we felt obliged to ask the author for a new draft. He was very nice about it and wrote to apologise for "the many errors in my paper on cocoa hybirds."

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The anti-DDT cult has taken a knock; that is, if information released by the World Health Organisation has been heeded. WHO point out that the withdrawal of DDT from anti-malarial campaigns will be a catastrophe for human health. Spraying campaigns have freed more than one billion people from the risk of malaria in the past 25 years and these gains could easily be lost by the lack of DDT.

An example is Ceylon. Malaria had almost been eliminated from that country, and cases had dropped from 2.8 million per annum in 1946 to only 110 in 1961. Deaths fell from 12,587 to nil. Now with the stopping of DDT spraying, cases have risen alarmingly: to 2.5 million in 1968 and 1969!

Another case for immediate action is indicated in the matter of the world's supplies of wood, if there is to be enough in 20 years' time. This warning was given recently by Mr E Sali, Chief of Hungary's Department for Forest Management, at a meeting of the Second Ad Hoc Committee on Forestry held at FAO Headquarters. More than 100 forestry experts from 57 countries discussed the present forestry situation throughout the world, and future forest production prospects.

These prospects, according to many delegates, were not good. Mr Sali said that dwindling forest resources against an ever-increasing consumption of timber and all sorts of wood products was "a matter of concern." The improvement and expansion of our forestry resources was "our most important task in the future." Afforestation of new areas, the improvement of tree species through genetic selection so as to increase the yield per hectare, expanding man-made forests, better fire-protection and pest control, were among the most urgent steps suggested by delegates to improve forest production throughout the world.

Discarded motor car tyres have long been a major solid waste pollution problem but in the October issue of *Rubber News* we are told that they are now being considered "as a possible additive in black top dressing for driveways and parking lots". This concept is being investigated by Columbus laboratories in Ohio for the Environmental Protection Agency of the Department of Health, Education and Welfare in the U.S. The man in charge of the investigation says that "existing technical information suggests that rubber added to asphalt emulsion and coal tar dressing could lead to improved performance properties." It is believed that the inclusion of reclaimed rubber might increase the cost of dressing raw materials 25–60 cents (US) per five gallons but on the basis of current blacktop dressing sales, homeowners have indicated a willingness to pay a premium price to get a longer-lasting driveway coating.

It seems clear from the above that this idea, if it is found to work, will apply only to surfaces not under severe stress such as those on roads bearing heavy traffic. The point raised in our January editorial (*Rubberised roads*), remains a valid one, but in any case, and again referring to *Rubber News*, we learn that the Goodyear Company in Great Britain is installing an incinerator at its factory in Wolverhampton which "can dispose of scrap tyres and other waste products without causing smoke. The tyre bead, previously an obstacle in the disposal of tyres by burning, will also be reduced to become part of the ash in the form of small globules of metal. The incinerator will accept all tyres up to and including the larger truck

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It's dangerous time for rubber trees and oil palms just after you spray with life-saving weedkiller. Rain may wash the spray off the leaves before they can drink it in. So time is vital.

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Megapol 440	
Wettagem N200	Specially made for cationic sprays.
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sizes and will come into operation in January 1972." Nothing is said about the smell from this operation, if there is any, but we wish Goodyear every success.

Ninety-four new members joined the Society in 1971, and for recruiting* the highest number of these Inche Goh Hoon Liang receives an ISP tie with our compliments. On the subject of sponsorship generally, it is to be regretted that some members still fail to exercise sufficient care when endorsing applications for membership and several of the latter have had to be turned down. The first question to be asked about an applicant is: does he hold a responsible, executive position in, or connected with the plantation industry? If the reply to this is affirmative, there can be little doubt of his eligibility.

Plans for the new ISP Hostel have now been signed and details of how the Society hopes to finance the project will be announced shortly. The Executive Council have agreed that if we are to expect any help from the industry the Society should itself aim at contributing half the cost, *i.e.* about $200 000.

Bless this House—and pass the hydrochloric. A rare facet of connubial bliss is reported in *The Straits Times* (25 January). "Questioned by Asst Supt Lim, Munusamy said Aishah and he had been in love, although they had thrown acid at each other over financial issues."

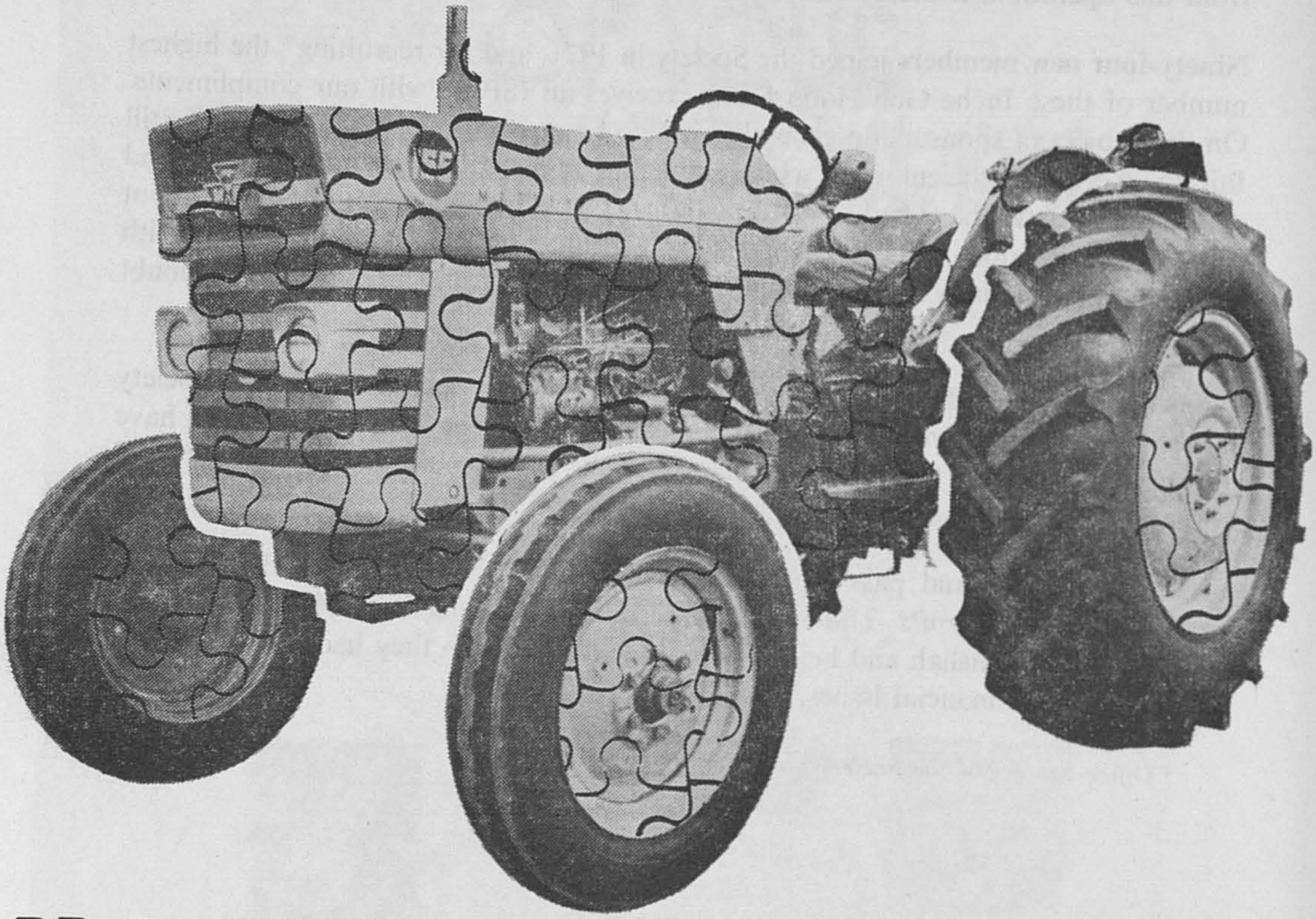
* *Office-bearers of the Society are naturally ineligible.*

NOTICE

ONLY ONE MORE MONTH REMAINS TO THOSE MEMBERS WHO HAVE NOT YET PAID THEIR ANNUAL SUBSCRIPTION BEFORE ALL PRIVILEGES OF MEMBERSHIP ARE WITHDRAWN.

(*Vide* Article 7 (a))

thinking spare parts ?



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Here follows is part of an after-dinner speech given by Dr Magnus Pyke FRSE to the Association of Applied Biologists on 8 July 1971 and is reprinted, with acknowledgements, from *Biologist*, Journal of the Institute of Biology. The speech was entitled "Applied Biology and Food Manufacture—The Limit"

"Perhaps an even more remarkable example of the new enlightenment that is beginning to put a limit to our current adventures in advanced food manufacture is that arising from the end of the first hundred years of one of the most successful products of technological innovation. I refer to margarine. Initially based on a false scientific premise, this artificial butter was first constructed out of suet. But following the later discovery of hydrogenation it became possible to make it out of any available fat. This led to Lord Leverhulme in his anxiety to make the most of the opportunities available to him from the joint advances of applied chemistry and biology taking steps to develop new supplies of raw material. This he eventually succeeded in doing by clearing out from large areas of the then Belgian Congo, Nigeria, the Cameroons and the Gold Coast the family producers of oil and setting up instead plantations of palm trees, systematically spaced, selected from the best biological stock, scientifically fertilized and efficiently and economically harvested in quantities sufficient to justify substantial capital investment in extraction plant. All this achieved the sort of scientific, technological and economic progress, together with the large-scale manufacture of a nourishing and attractive foodstuff capable of being spread straight from the refrigerator to which we have become accustomed. It is true that in doing this to the betterment of the diet of the developed West, Lord Leverhulme disrupted the social organization of the local farmers who before he came had been accustomed to till a small patch of ground and leave the palm kernels and the oil in them as perquisites for their wives, in rather the same way that Western farmers encouraged *their* wives to make pin-money from the sale of eggs fed on kitchen scraps. What is bringing about a change in this pattern of technological growth, according to K. E. Hunt in his contribution to the centenary account of the history of margarine, has been the awakening of the great technological industrialists to the fact that, while they can control the extraction of oil and the chemical composition of the oil when they have extracted it, they cannot control events. In recent years it has been found that when, like the uncontrollable famines and pestilences of old, that existed before applied biologists had been heard of, slumps and depressions occur, the ability of a family producer of palm oil to cut back his expenses by growing food rather than spending his labour on harvesting his cash crop gave him a resilience not matched by the plantation proprietors.

This single reference in the pious volume written to celebrate the triumphant 100-year history of margarine, one of the major successes of food science and technology, can perhaps be taken as an indication that what De Solla Price* foresaw is beginning to happen and that, as is also now perceived by the builders of ships on the Clyde and constructors of the best motor car on earth, there may be a turning point even in the progress of the most self-assured applications of scientific expertise."

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*De Solla Price, D.J. (1963). *Little science, big science*. New York: Columbia University Press.

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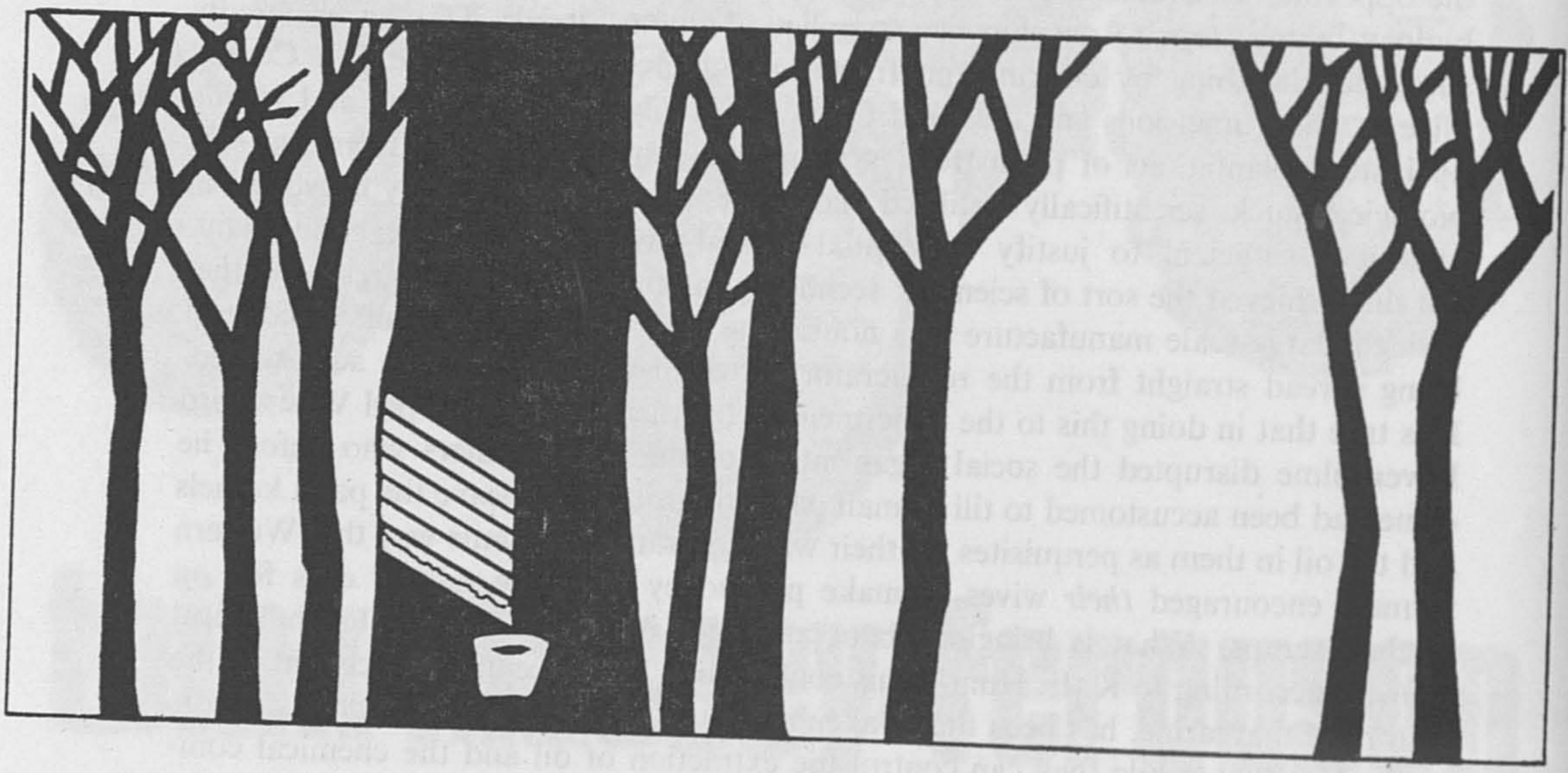

(extracts from a crop protection paper.)

" Black stripe: — effective fungicides were captafol (2% Difolatan), —. Complete control of the disease seldom occurred and a maximum 65% reduction in severity was the best that could be achieved with severe infection.

The " flowable " formulation of Difolatan gave better control than the wettable powder at the same dilution, although containing about half the amount of active ingredient. The liquid formulation is probably a better bark penetrant.

Mouldy rot: of the fungicides tested against mouldy rot, — 2% Difolatan — gave better control — with 2 applications at weekly intervals.

Since — Difolatan — control(s) mouldy rot as well as black stripe, they are therefore suitable for use in areas where both diseases occur.

It is now possible to achieve good control of mouldy rot with weekly applications of newer fungicides such as — and Difolatan, but with black stripe application after every tapping is necessary."

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Letters to the Editor

Dear Sir,

In HEADQUARTERS AFFAIRS in November last, you mentioned a firm in Hertford (U.K.) which supplies predators for the biological control of insect pests in market garden crops. You also referred to myself as a possible breeder of bugs able to feed upon leaf-eating caterpillars in Malaysia. Several planters have since drawn my attention to your note, even suggesting that I was being "got at". I hardly think, though, that this is an occasion to call upon the services of Messrs. Siew, Grabbitt and Runne (*a firm of solicitors frequently employed by* Private Eye *magazine—Ed.*), but a few comments might be of interest.

First, about the United Kingdom situation. It is interesting that biological control is particularly emphasised in greenhouses. A greenhouse of course, confers a degree of stability on "climate" and creates conditions rather similar to the outdoor situation in this country, where regulation of pest populations is strongly dependent on biological factors. However, a degree of seasonality does exist and in particular spider mites, which hibernate within the framework of greenhouses, emerge at planting time and increase considerably before enemies build up. This is somewhat akin to our situation where outbreaks of a particular pest may be triggered from one cause or another (often insecticides), and then develop for several generations before natural balance is restored. Hussey, Bravenboer (in Holland) and others*, working on this problem, have found that a good way to ensure a stable population balance through the growing period is not only to introduce predator mites, but actually to introduce pests early on. This reduces the patchiness of early infestations so that the mite populations begin to balance immediately. A conveyor belt equipment to place a certain number of pests and predators on each seedling has even been used!

The technique proves effective, and is a basis on which the biological control programmes in greenhouses are conducted. There is a lesson here for those who still feel that pest control is simply a matter of destruction.

Regarding the question of "breeding" a predator designed to be happy chomping away at a diet of leaf-feeding caterpillars (to use your own flamboyant phraseology), I have often thought of mass-rearing the predator *Sycanus dichotomus* for release in oil palms at critical times. Although I do not believe this predator plays any major part in the steady regulation of caterpillars, it does build up in outbreaks and frequently seems to help to restore the low-level balance by killing large numbers of pests. It is itself subject to parasitization in the egg stage, something of a handicap to increase at critical times, so mass release might well be of value.

I have taken little action on grounds of relative priorities. There are major problems of rearing, which would involve the need to rear a food caterpillar as well. The cost would be considerable to have a stock permanently ready for mass release

---

* In *Biological Control* (1971) ed. Huffaker C.A., New York: Plenum Press. These are the proceedings of a conference held in Boston in late 1969 by the American Association for the Advancement of Science, at which Mr. Wood read a paper on pests in oil palm.—*Ed.*

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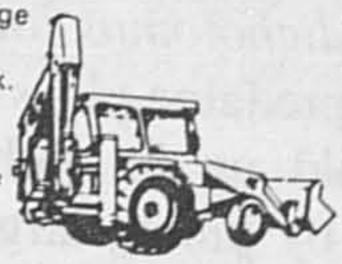

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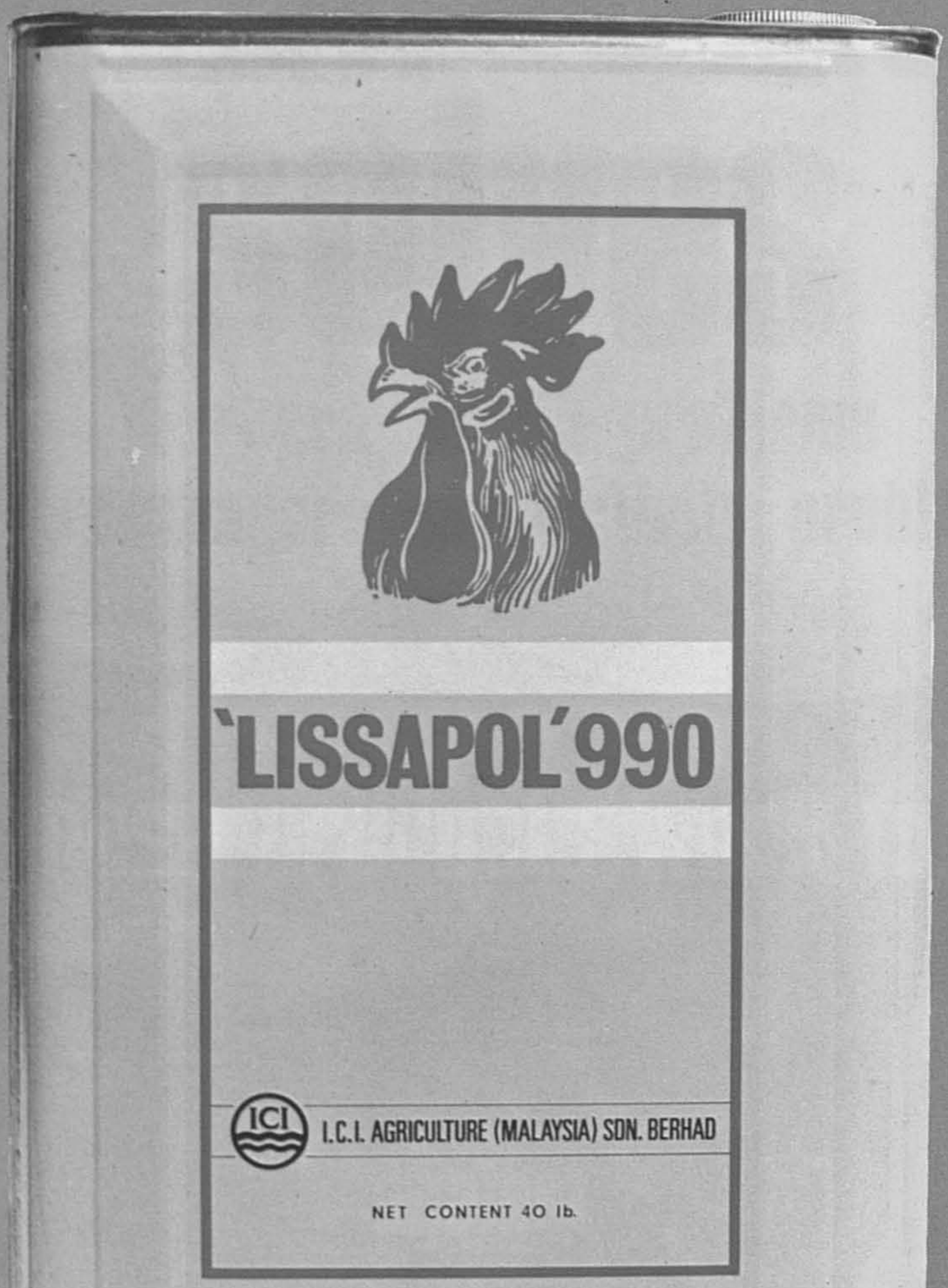

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in the occasional outbreak we get. The same effects can probably be achieved by knocking down such outbreaks as do occur with selective chemicals which also permit restoration of balance. This is the policy we have been following in West Malaysia and recent experiments are showing up the whole new range of chemicals which could be useful additions to our capabilities. Nevertheless, I still wonder if mass release of *Sycanus* or a similar predator would be useful in some circumstances. Unhappily, I don't have sufficiently regular and intensive pest attacks to try it with!

You ask to what would this predator next turn its attention, once it had finished off the caterpillars? The answer to this is easy—entomologists. When handled carelessly they probe the skin with their piercing mouth part, a sensation like being jabbed with a red hot needle (I imagine, although to be honest I have no direct experience of the latter). Fortunately, they do not pick quarrels so this experience is restricted to those who themselves are the aggressors.

Yours faithfully,

(*Sgd.*) B. J. WOOD.

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Dear Sir,

I write to bring to your attention an employment opportunity which could be of benefit to expatriate planters who may be returning to the U.K. in future.

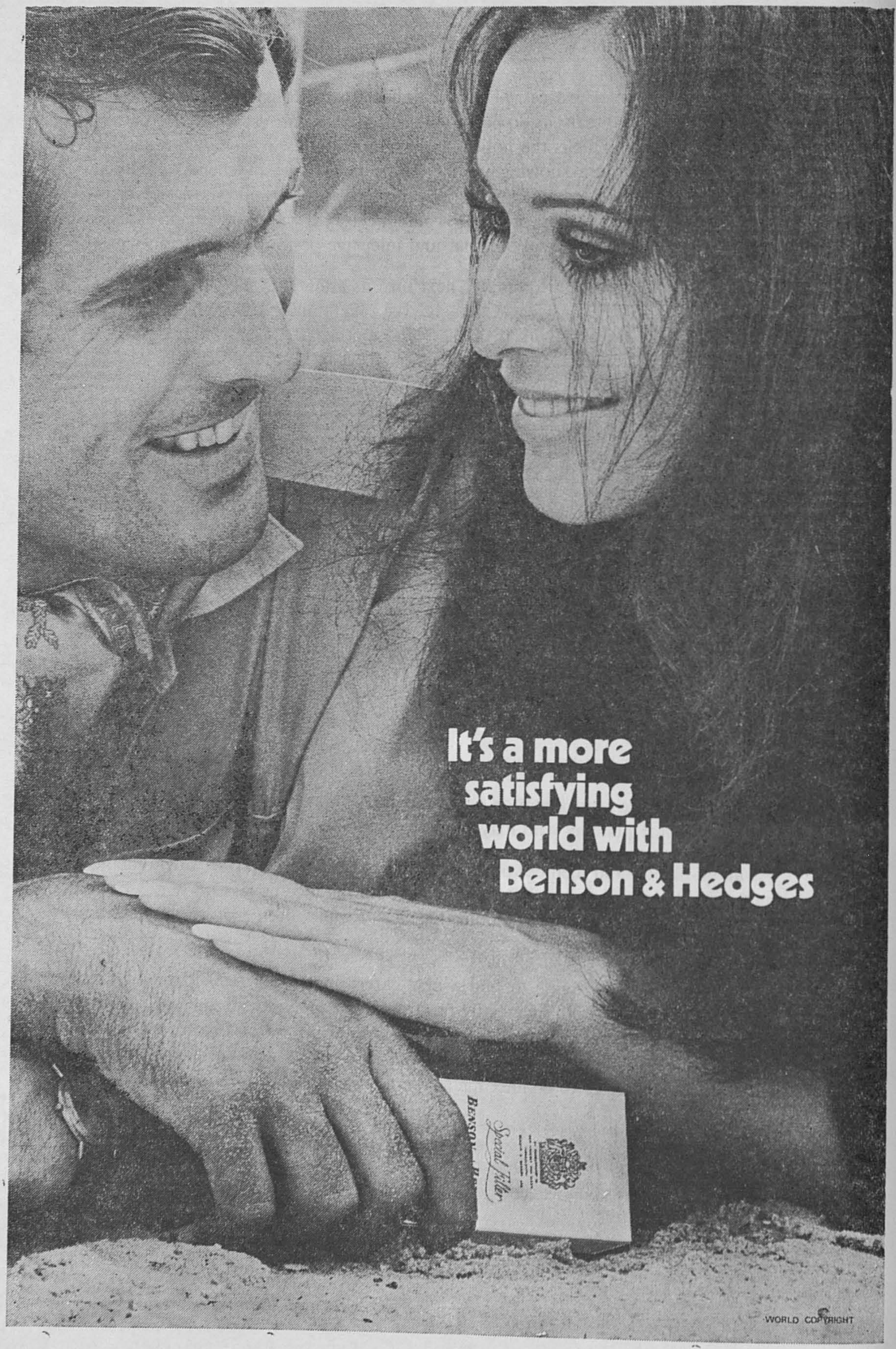
As an ex-planter and member of the society I experienced considerable difficulty finding a suitable second career that would offer both the income levels I had become accustomed to and the freedom of action. This has, I think, been a problem common to many returning planters.

Eventually I was fortunate to find a new career in the investment and saving industry that has proved both financially rewarding and mentally stimulating. There are always opportunities for men of the right calibre, and I would like to extend an invitation through your magazine, and any other media at your disposal, to anyone interested in such a career to contact me at the above address.

Yours sincerely,

P. E. H. MAULE-FFINCH,
Area Sales Manager.

3rd February, 1972.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Dear Sir,

TAPPING INTENSITIES

Following publication of my paper in *The Planter* last month I have obtained some yield statistics which bear interestingly on some of the arguments put forward.

The figures come from directly comparable areas of PB86 on two different estates in Negri Sembilan. They show the average unstimulated yields per tapping and per acre in 1970, compared with the stimulated ones for 1971. In each case there were five applications of Ethrel latex stimulant.

In 1970 both areas were on S/2.d2, but in 1971 Estate A adopted S/2.d3.

		Average yield in dry lb			
		1970		*1971*	
	budded	*per tapper*	*per acre*	*per tapper*	*per acre*
Estate A	1952	29	1 164	84	2 343
Estate B	1955	30	1 160	58	2 290

On paper, Estate A's tapping intensity in 1971 was 67% and Estate B's 100%. which of these was the more intensive system? The yield per acre from the so-called 67% system represents 102% of that from the 100% area. Which system imposes the greater strain on the trees' nutrient resources?: the 67% system whereby almost three times the pre-stimulation yield is extracted at each third-daily tapping—or the 100% system by which almost double the pre-stimulation yield is extracted on alternate days?

It is tempting to equate them, *i.e.* 300% third-daily=200% alternate-daily, but this surely means falling into the same error as exemplified by our present tapping notation system. It seems naïve to use an arithmetical formula in relation to metabolic processes. Probably only a long-term observation of the yield trends would supply the answer. Nevertheless I would welcome other views on this subject.

Taking another aspect, the third-daily figures are very encouraging for the prospect of reducing labour intensiveness whilst increasing individual productivity without reducing the total annual yield.

Yours faithfully,

W. NEWALL.

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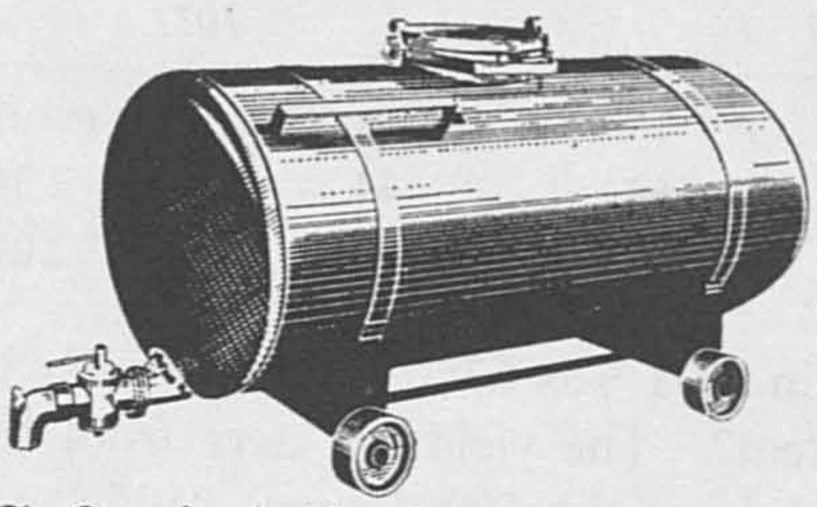

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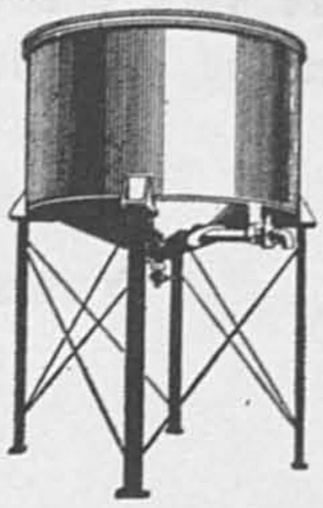

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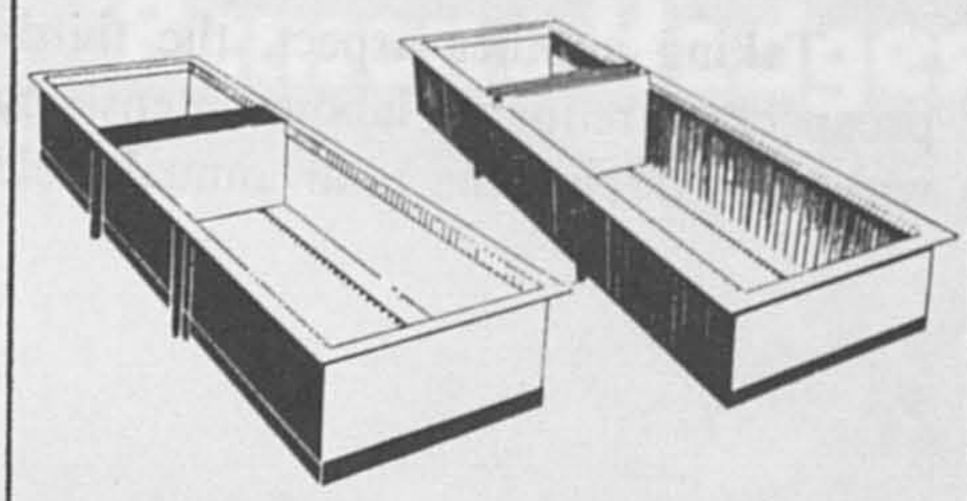

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Book review:

Micro-organisms associated with Oil Palm

By P D Turner, pp 58, Commonwealth Mycological Institute Phytopathological Papers No. 14, 1971. £1.

A long-standing omission from the library of oil palm literature has been rectified with the compilation by Dr Turner of an up-to-date list of fungi and other micro-organisms which have been found in association with the oil palm, *Elaeis guineensis* Jacq. Both agricultural (the palm itself) and commercial (palm oil and kernels) substrates are included, with the result that a very large number (416) of fungi is listed, as well as bacteria, algae, suspected viruses and nematodes. The known world distribution is given for each entry, and the appropriate literature reference cited.

The length of the list suggests that many of the organisms quoted are saprophytes or epiphytes and are of no economic significance. Dr Turner rightly dismisses them in a single line. The most important pathogens and those organisms capable of degrading palm oil and kernels are dealt with in slightly more detail, with a thumb nail sketch of their activity, economic importance and control where appropriate.

The checklist is compiled primarily for the microbiologist, and is not likely to feature on the planter's bookshelf. Dr Turner's other publications, many of which have appeared in this magazine, are of greater local interest in this respect. However, as a scientific manual it is invaluable, and both the author and the Commonwealth Mycological Institute are to be congratulated on its presentation.

Perhaps clearer emphasis could with advantage have been placed on the more important micro-organisms by indicating them with an asterisk. A minor criticism is the absence of specific names of fungi from the index. Listing the fungi additionally under the territories (or even continents) in which they have been recorded would also have enhanced still further the usefulness of the book.

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One section of the rural population

by

RASIBOA

Those of our workers who are resident on the plantations have a rather different status from that of other members of the rural population. It is a status which, we can now see, is at odds with the new patterns of our times, because it tends to divide them from their fellow citizens instead of bringing them together. This is all the more unfortunate because so many of the estate workers are of one descent while their neighbours in the kampongs and small towns are of another.

Sixty or seventy years ago when the plantation industry was being opened up in a big way, most estates were rather isolated, and communications throughout the country were poor. The estates therefore had to be self sufficient as regards amenities and necessities for their workers, having for example their own shops, schools and hospitals. Thus the estate employees tended to become self-contained communities. The fact that most of the workers were immigrants from southern India and what is now Indonesia further emphasised their separateness from their non-estate neighbours; we are now left with the hangover from those early historical factors.

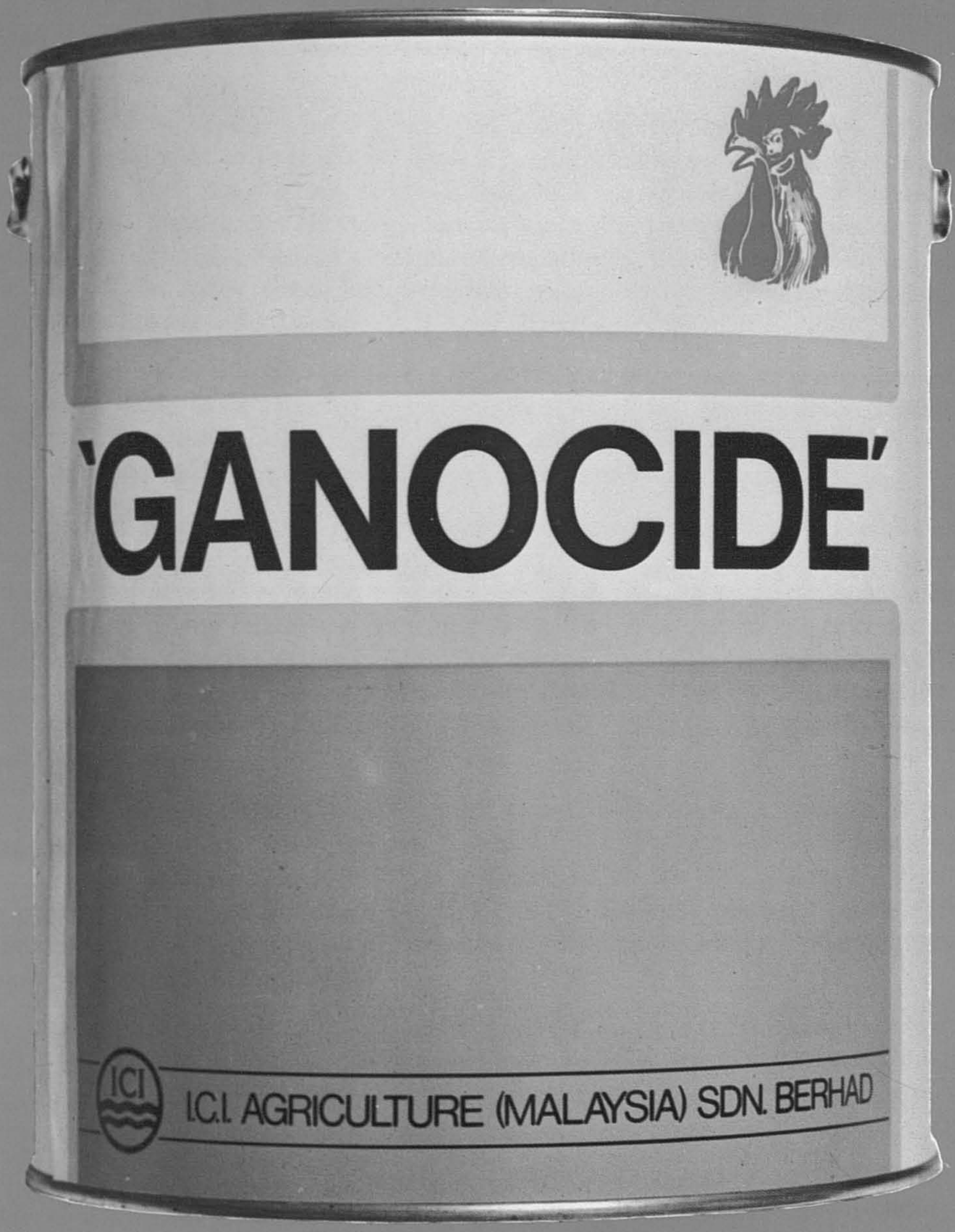
The great development in the country in recent years and the general rise in living standards have no doubt reduced the isolation of many estates to a large extent, and estate workers now not only listen to radio and watch television, but visit the towns more often than their parents and grandparents did. Nevertheless the estate remains their village and in it they still tend to be cut off from other rural dwellers.

The fact that their "village" is on private property adds further to their apartness from the mainstream of rural Malaysian life, and they have little opportunity to know much about the lives and outlook of the non-estate population. Both in work and leisure they are surrounded by their own people, speaking their own language and following their own customs, and it is not easy, especially for the older people, to acquire the new outlook which is needed if they are to think of themselves primarily as Malaysians and only secondarily as members of a particular descent and culture.

There are several spheres in which the separateness of estate workers seems to be emphasised. One of these, for example, is their medical services. When sick they are attended to by the estate medical services, whereas most of their neighbours use the Government health services. In the pioneering days it was very necessary for estates to have their own hospitals, and in fact the law made this compulsory. That old law is still in force but is now out of keeping with the times, since it is one more factor dividing estate workers from their fellow citizens at a time when all such divisive factors should be done away with.

We have to recognise however, that it is much easier to state this problem than to remedy it. Since independence, the Government rural health services have been improved and expanded immensely, and this expansion is still going on. The Medical

The new guard against red root disease



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'Cock's Head' agricultural products help Malaysia grow

Services rank very high in the annual budget and they are costing a great deal of money. It is therefore perhaps unrealistic to expect that Government could at this time add to its burden by taking over estate hospitals; but it seems certain that eventually some such arrangement will come about, and this will rationalise the rural health services in a way which will be in keeping with the needs both of health and nation-building.

As with the hospitals so it is with the schools on estates. The estate school children usually have little or no contact with the children of their non-estate neighbours. Their schools too are called National Type schools instead of National schools, and although this distinction seemed acceptable enough many years ago, to indicate the different language mediums of the schools, it can now be seen as yet another of the many small but important factors which perpetuate unwanted distinctions among our citizens.

Distinctions of this kind can hardly fail to leave an impression on young children and this is liable to be reflected in their outlook when they become adult citizens. However, the realistic education policy which is now being implemented will gradually overcome these difficulties, though this will take a good many years.

Another sphere in which there is scope for reducing the apartness of the estates population is in the land development schemes. Redundancy on estates has been increasing for several years, and everything seems to point to this trend continuing in the future. Many estate workers' children find that they can no longer count on being employed on the estates where they were born and bred, and therefore it seems only fair that they should be given the chance with others to acquire land. This would also enhance their feeling of belonging to this country and thus make them better citizens.

Land settlement naturally involves the question of priorities. In spite of the great advances made in giving out new land there are still large numbers of kampong dwellers who have insufficient land for a reasonable living. This makes it difficult to provide for the surplus estate workers as well. But with the huge increase in land development schemes which is scheduled for the second Malaysia Plan perhaps some places could be kept for them.

The isolation of estate populations is just one example of the many problems of nation building which are being studied in depth by the Government. Many measures have already been taken to overcome the problems, both in the long and short term.

But could we perhaps add something to the Government's efforts? Could we start now to arrange some practical programmes to foster better understanding, friendship and general integration between our estate employees and other sections of the rural community? The difficulties are many, and it is all too easy to adopt a *laissez faire* attitude and hope that the slow passage of time will bring about a solution. But this is rather a defeatist attitude. Far better if we could all understand that the problem is real and urgent, and that the future progress of the country depends on its successful solution. If we can realise this we will surely try to find ways to start solving the problem now, at least in our own sphere, which is on the estates.

There are indeed a good many ways in which we could do this, and if we set down a few of the more obvious ones then many others will probably occur to us.

First of all there are the school children. During this transitional period while while the education policy is gathering momentum, could we not have our estate children get together with the kampong and village children at least once or twice each term? They could join in outdoor or indoor games, or debates or quizzes, or any other suitable extra-mural activity which school pupils normally engage in. These occasions could be turn-and-turn-about in the different schools. A programme of this kind would be easy to implement because it would require no extra equipment, staff, or special training, but would be based entirely on the existing activities which all schools engage in. All that is needed is that such a programme of inter-school activities should become a routine and accepted part of every school's curriculum, especially in the Primary schools.

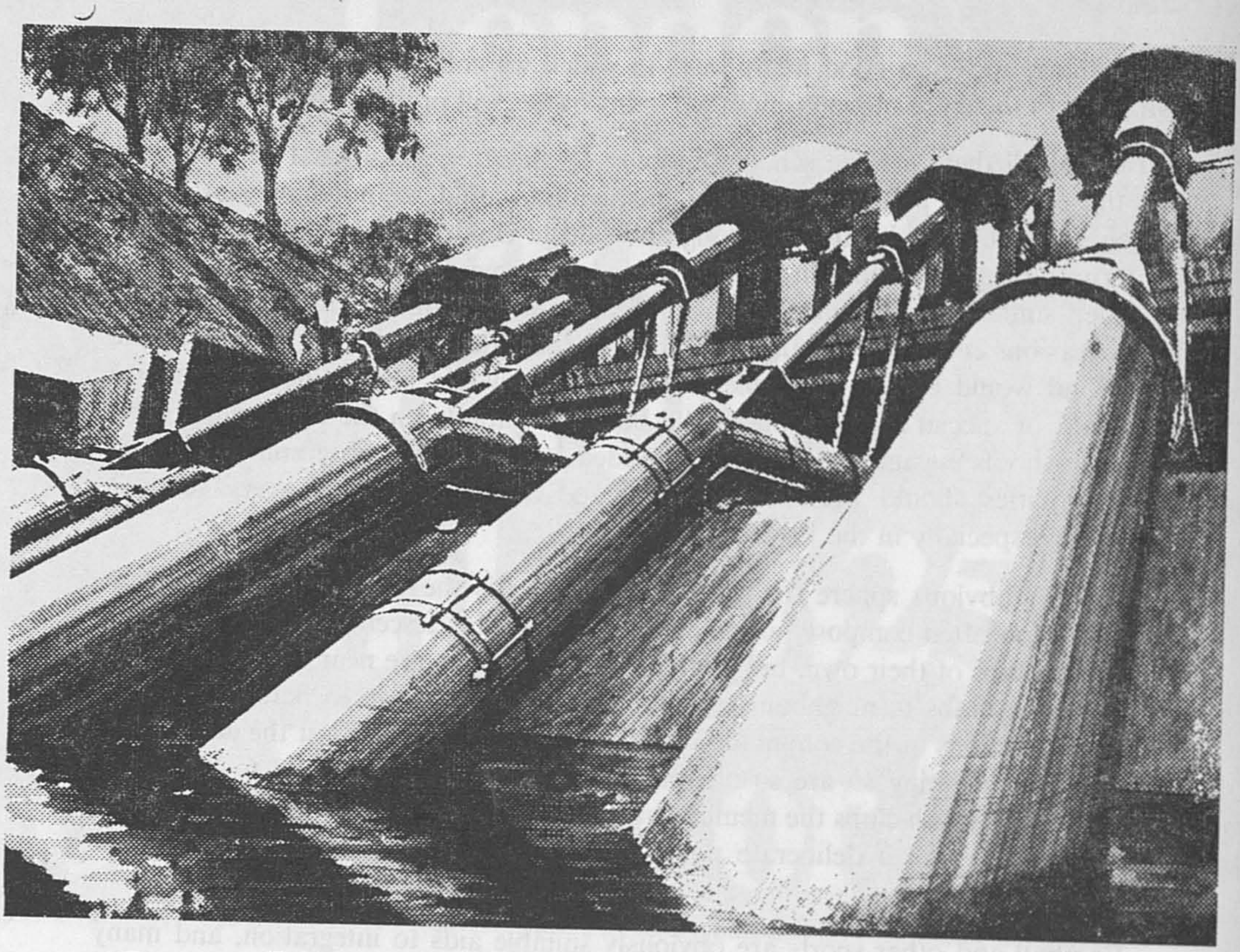
Another obvious sphere for helping integration is the Youth Clubs, which at present are too often composed of members of one racial descent. Not many estates have youth clubs of their own, but a large number of them are near enough for their youths to join clubs in neighbouring kampongs. It is not easy to persuade youths of different sections of the community to get together in this way, but the advantages of succeeding in doing so are so obvious that it must be worthwhile to make the effort. In a few youth clubs the membership is mixed, and these could be an example to the others so that a deliberate policy of mixed membership could be adopted wherever possible.

Football and other sports are obviously suitable aids to integration, and many estate teams do have matches with outside teams. But although this helps a little bit in getting people to know one another, it still over-emphasises the separateness of the opposing teams. It would be better if teams for football and other sports could be made up on an area basis, for example Mukim and District teams which would be picked from the best players whether from estate, kampongs or country towns. This would really help to break down the present divisions between estate and non-estate people.

The estates population at present tends to be left out of the affairs of the rest of the rural community because so many of the estates employees, owing to the historical factors mentioned earlier, have not in the past been citizens of this country. But now this has changed and most of them are citizens, and so it is necessary to bring them into the social life of the kampongs and small towns around them.

If this can be done they will begin to feel they really are a part of the *ra'ayat*, and it is essential that they should feel so if we are to succeed in the nation-building policies on which we are now engaged.

These policies of course are designed for the country as a whole, and the conditions which prevail on estates are just one part of the overall problem. But they are an important part, because although the numbers of people involved are not a large proportion of the country's population, the problem they exemplify is nevertheless representative of the wider problem itself. If we can help to solve it we will be making a worthwhile contribution to the future well-being of the country.



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ICI

DATELINE KUALA LUMPUR

Every dog has its day—and for The Dog, the good old days appear to be over. First ravaged by fire then by flood, the Selangor Club building is now about to be demolished to make way for a proposed civic centre. It is unfortunate for The Dog that it should be sited on about the choicest bit of land in Kuala Lumpur—land for which the Government feels it has better use.

The Selangor Club has been fighting a dogged battle to retain "squatting rights"—its Temporary Occupation Licence has still 55 years to run—but obviously has been bested. Progress, it seems, has no time for history. And The Dog is a historic landmark, immortalised by Maugham, and remembered fondly by many of its old members scattered all over the world.

The Dog came into its own during the dark days of the Emergency. For many, it was a haven, a refuge in the fight against the communists. For this reason alone, it will always be close to the hearts of the hundreds of planters who remained in Malaya during those trying days.

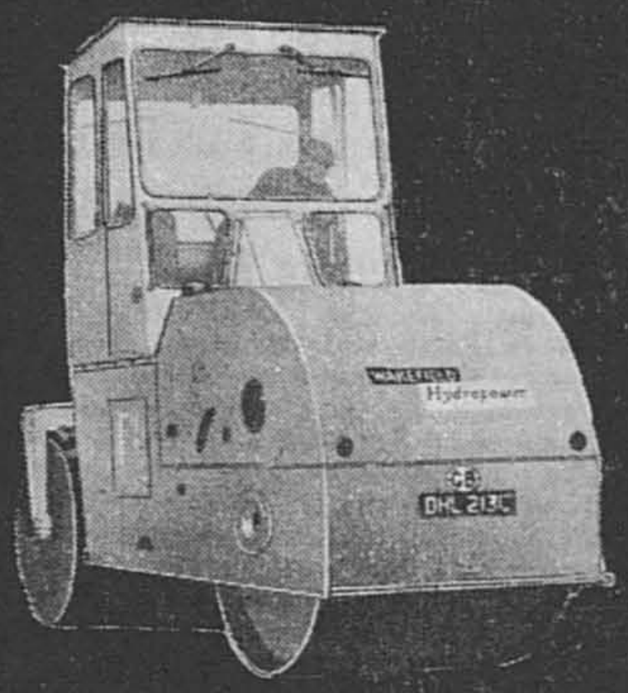
When Malaya attained independence, the British flag was struck at the Club's *padang* and the Malayan flag hoisted in its place. And each National Day, this same *padang* is the focal point of the country's celebrations. With its quiet, half-timbered air, The Dog represents almost a century of Malayan history. Unfortunately, an irrevocable decision has been reached.

But even if the Selangor Club really has to go ("Out, out, damned Spot"), there are a number of considerations which will have to be taken into account. An ultra-modern high-rise building on the present site of the Club will effectively blot out the view of Bukit Aman, the former Bluff Hill. Even worse, it will cast a shadow right across the *padang*. The new building will also have to provide for car parking. Ground parking in this case will mean that the *padang*, already bitten into by the Labour Ministry at the Jalan Raja end, will have to be further encroached upon. If the authorities are bent on moving on to the *padang*, perhaps they should site their building on the south end where there will be no shadow problem, in which case, a member suggested, a low-rise sports pavilion can occupy the site of the present club.

All the same, it is sad to note that Malaysia, like most young and self-conscious nations, tends to forget that history lurks in little corners. The Dog is a case in point, but only one among many. In her hurry to build a new, shining image, a nation often pays little heed to some of the buildings which history has thrown up. The modern age is reserved for modern monuments. "Modern" carries such connotations of

WAKEFIELD

TAKES ON A WIDE FIELD OF WORK...



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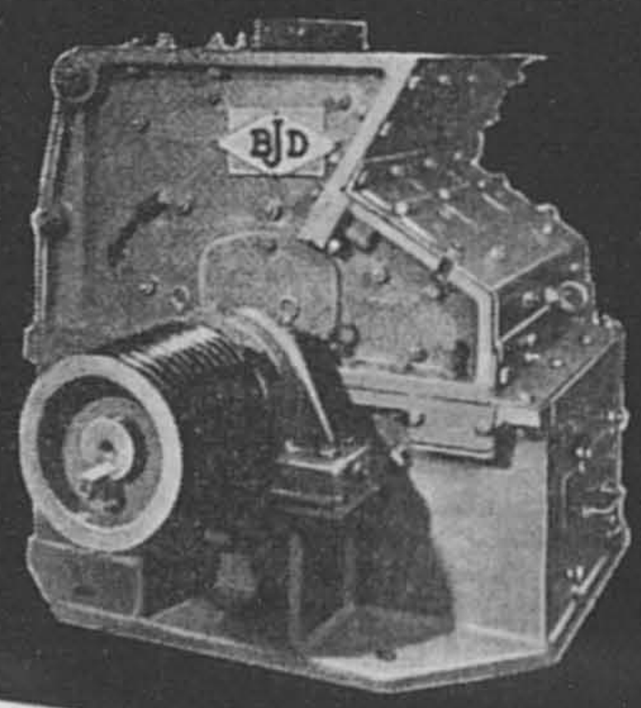

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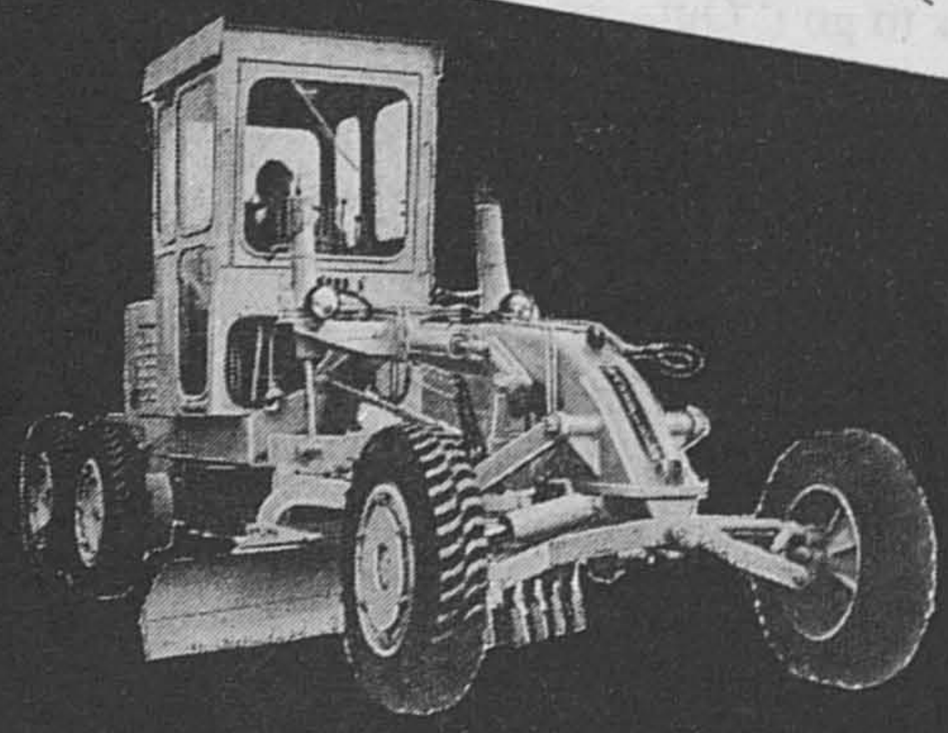

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progress and approval that the fact that "modern" can likewise connote bad taste is overlooked.

Coupled with this is the belief that modern buildings are what tourists are looking for, and it is ironical that European or American visitors can boast of larger, taller and finer bee-hives any day of the week. Besides her natural beauty, Malaysia's greatest attraction is her unique blend of history and culture— a point obviously overlooked. Perhaps we shouldn't hurry to become an "all tinsel and gilt" tourist trap; we have our old charm to preserve. In the words of Mrs B Chalmers, an old Malayan planter's wife, "if your country loses its antiquities, it loses part of its soul."

Perhaps the haste to sweep away an important part of our past stems from a sense of shame and guilt. Colonial history is anathema. It brings with it a sense of our weakness and inability to prevent foreign powers from dominating us. National pride is understandable, but it should not unbalance us. The word "colonial" has often been made a rallying point for hate and bigotry.

This shouldn't be the case in Malaysia since she has nothing really to be ashamed of in the final analysis. Taken constructively, it can be considered an enriching experience—with the shadows of the Portuguese, Dutch and British to add to our already varied historical background.

Instead of hiding skeletons in the cupboard, we should accept the past for what it is. If we cannot remember it with pride, we should at least recall it with equanimity.

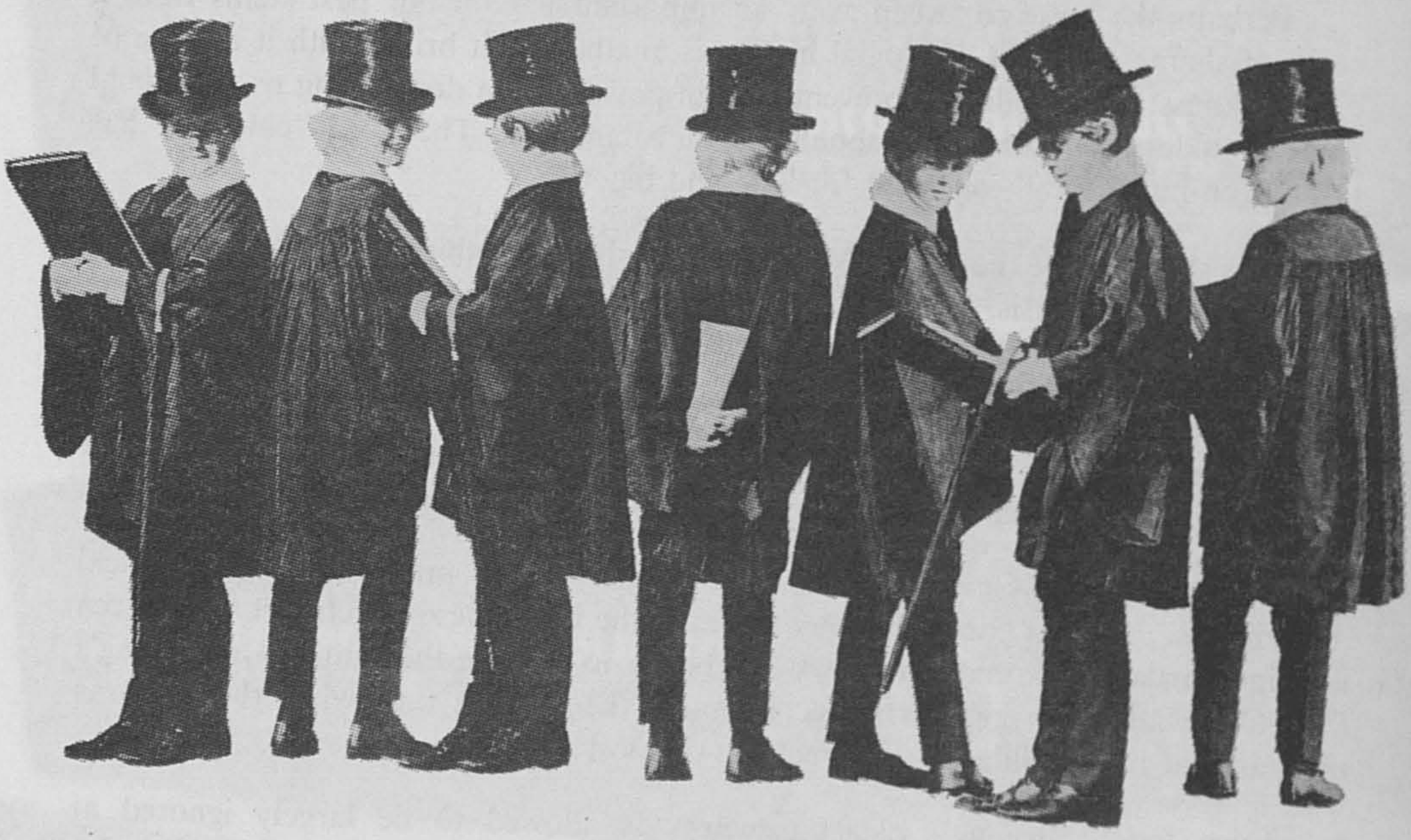
Fortunately, the Government has, on the whole been practical about historical monuments. After a goodly number of years, the Portuguese Dutch fort at Malacca is being partially restored, and work has begun to provide the cannons at Penang's Fort Cornwallis with gun-carriages. Even so, there was a time when the fort was used as that most utilitarian of structures—a post office.

Even today, Penang's oldest cemetery is allowed to lie largely ignored at Northam Road. Here can be found the grave of Captain Francis Light, the founder of Penang, together with those of many of the island's ancient notables. One of Malaya's pioneer planters, Mr Brown, is entombed there. And so history is allowed to moulder. Let us hope that the cemetery will be looked at with reverence, and not with the sardonic gleam of the developer's eye. Unfortunately, the cemetery is sited on a highly desirable piece of Penang real estate.

At last, coffee growers are getting their share of attention. Agriculture and Fisheries Minister Tan Sri Mohamed Ghazali announced the setting up of the Agriculture Produce Marketing Board (APMB) and a coffee marketing scheme. The aim is to get better prices for coffee growers and "even out" price fluctuations.

The APMB will run the scheme and will eventually handle the marketing of other minor produce grown in the country. The coffee scheme will initially benefit about 3 000 coffee growers in Selangor. The State produces 75% of the country's coffee

Daily to London



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in three main areas centred around Kuala Langat, Kuala Selangor and the Klang district.

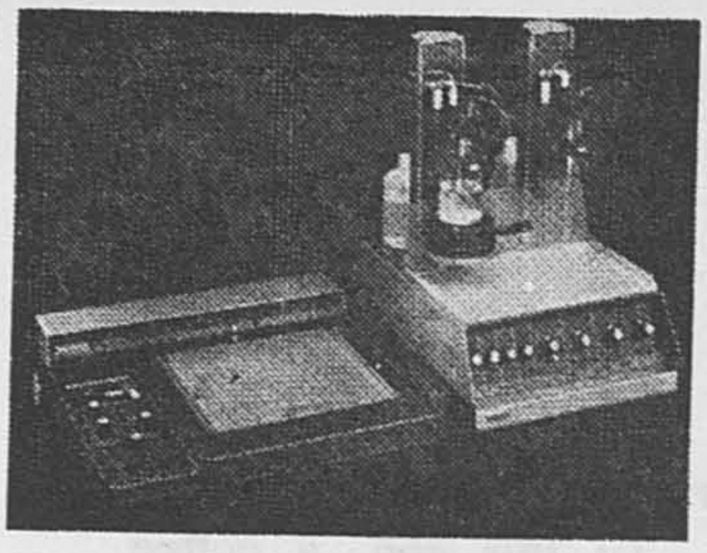
The Board will not involve itself directly with marketing schemes but will make direct purchases and help with processing if necessary. To this end, a coffee processing plant is being planned for Kuala Langat. At the same time, purchasers of coffee berries and beans will be licensed. The Minister also said that APMB branches were being set up in Banting and Kuala Selangor.

Although these are encouraging signs, the coffee grower has still to receive concrete aid. Admittedly, the problem of fluctuating prices is a major problem, but it is far from being the only one.

Perhaps what is needed is more advice, fertilisers and grants. Coffee growers very often have little idea of proper methods of cultivation and pruning. They also lack information on disease control, the age at which bushes produce best, and improving their crops.

It is unlikely that coffee will ever be a major crop in the country, but Malaysia's growers of coffee and other "minor crops" need their share of help.

J. N. M.



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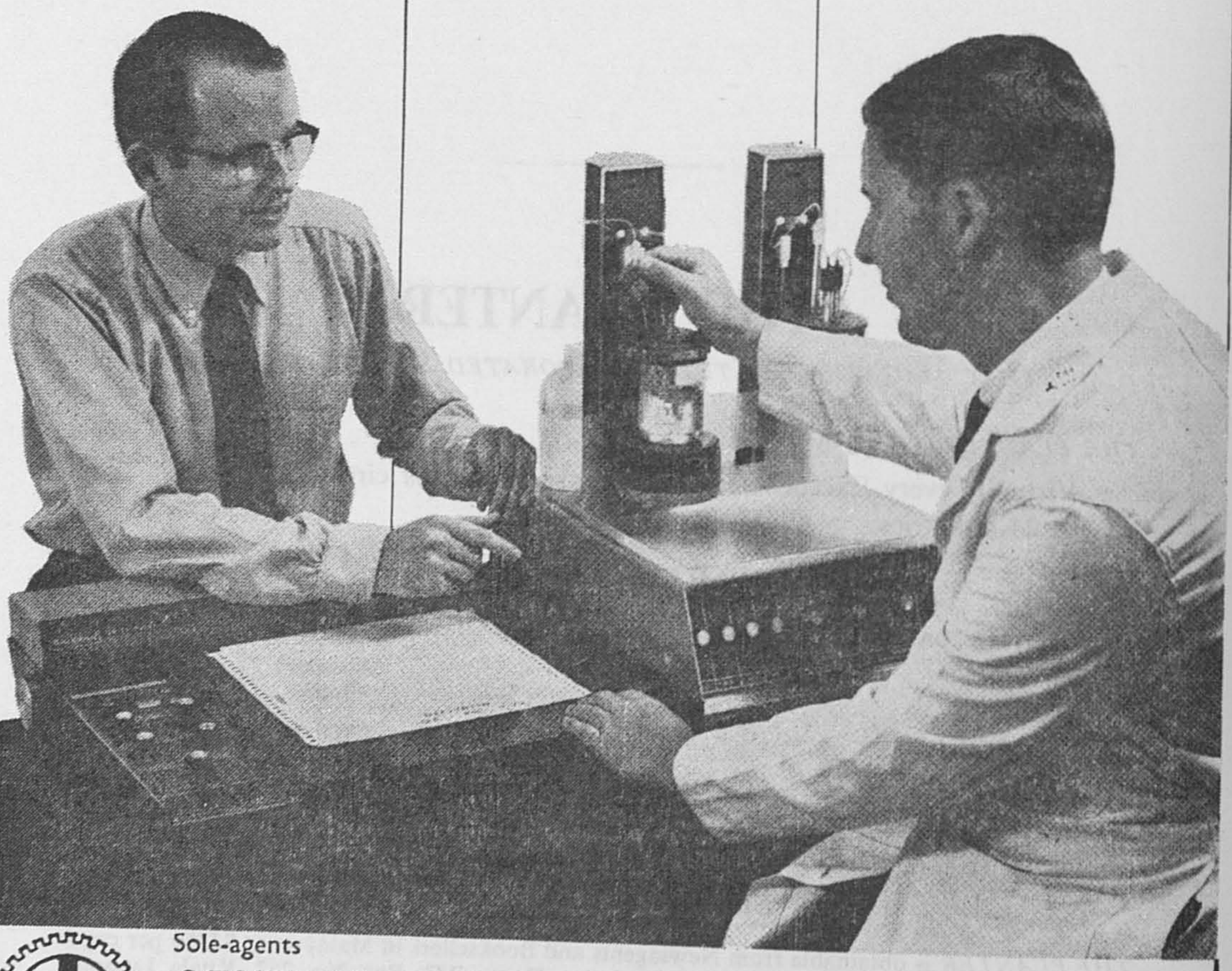

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Uplands School

Readers may be concerned to know that Uplands School was operated during 1971 at a loss of $771. The first two terms operated at a profit and the third term at a loss. This was mainly due to the reduced number of pupils attending the school.

There were 122 pupils for the Spring Term
111 pupils for the Summer Term
and 97 pupils for the Winter Term

It is estimated that there will be 85 pupils attending this current Spring Term, and estimates show that a possible loss of $13 000 is likely to be incurred. It is evident that the School cannot continue to operate under these conditions, so it is inevitable that the fees must be increased and parents will be notified about this as soon as practicable.

It is considered that with the reduced numbers, fees must be in the region of $1 100 per term to avoid further losses.

With the rundown of expatriate planters, miners, and members of commercial firms, the need for this type of school possibly no longer exists, and the writer would be grateful if Branch Chairmen would please advise him* of their Members' views.

Miss Shotton and Miss Ford will be leaving at the end of the Spring Term and the Management Committee have announced the appointment of Mr P E Drury as Principal from 1st May 1972. Mr Drury is a bachelor aged thirty-nine and has spent seven years in Army Schools in Malaysia and Singapore and knows Penang and Malaysia well. He specialises in teaching new mathematics, speaks French, and is a qualified librarian, specialising in school libraries. He is at present Deputy Principal at the International School, Vientiane, a preparatory school for some 200 children.

Staff for the Summer Term will be: —

Principal	Mr P E Drury
Hillview	Mrs Berenger
,,	Miss Augustine
Uplands	Mr E D Clay
,,	Miss Voon Lee Lim
,,	Mrs Kee
,,	Mrs Seward (Visiting French teacher)

In October 1970 the school was visited by the Senior Education Officer FARELF, who advised that the school was educationally well up to the standard of primary schools in the UK.

Applications for vacancies should be made to The Principal, Uplands School, Penang Hill, Penang.

J.G.M.F.

(* *Through the Executive Secretary please.*)

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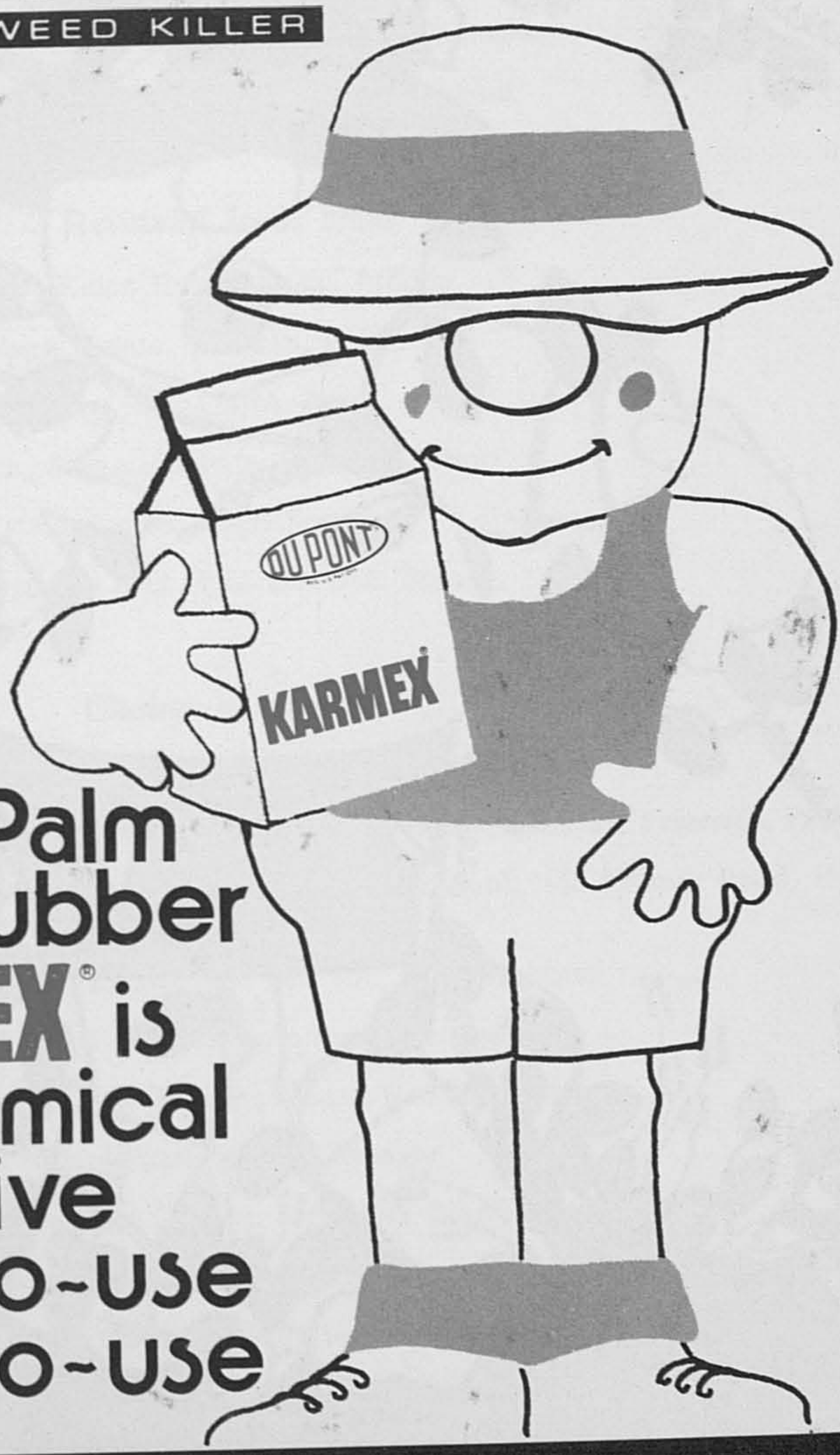

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On leave

5055 Ismayuddin bin Abdul Manan, c/o 17, Jalan Tan Sri Ab. Aziz, Sg. Kantan Bahru, Kajang, Selangor.

4732 Muirhead, P.R.S., Carse Bank, The Glebe, Clackmannan, Scotland.

4587 Nielsen, C.B., Holtebakken 12, Niverød, 2990 Nivaa, Denmark.

4322 Walker, J.A., 11 Westfield Road, Birchington, Kent, England.

Returned from leave

4477 Brown, T.P., N.D.A., A.I.S.P., Kelan Estate, Kulai, Johore.

4914 Collins, M.N., Sungei Wangi Estate, Sitiawan, Perak.

4679 Hogg, J.A., Kinta Kellas Estate, Batu Gajah, Perak.

3491 Macpherson, D.A., A.I.S.P., Segamat Estate, Segamat, Johore.

4664 Pager, D.A., Kok Foh Estate, Bahau, Negri Sembilan.

4331 Shaw, A.F., Austral Enterprises Bhd., P.O. Box 980, Penang.

Change of address

3637 Alexander, J.S., Tennamaram Estate, Batang Berjuntai, Selangor.

5059 Abdul Alim bin Abdul Satar, Sharikat Jenka Sdn. Bhd., P.O. Box 31, Temerloh, Pahang.

5155 Balbernie, B.C., B.A., D.T.A., c/o National Westminster Bank, 168 Church Road, Hove, BN3 2DQ, Sussex, England.

4407 Brennan, J.C.D., Bukit Paloh Estate, P.O. Box 107, Paloh, Johore.

5064 Balachandran, M., Bukit Besi Estate, Dungan Post, Trengganu.

4709 Benton, A.A., c/o Benton, Sungei Kawang Estate, Bentong, Pahang.

5653 Cheryan, Thomas, Bukit Rajah Estate, Klang, Selangor.

3716 Chitumbalam, G.T., 62 Seremban Garden, Seremban, Negri Sembilan.

3506 Doran, M. St. J., Rose Cottage, Upper 4th Avenue, Frenton-on-Sea, Essex, England.

3623 Glennie, D.A.I., 33 Offington Gardens, Worthing, Sussex, England.

5717 Kandaswamy, A., 49 Lorong Scott, Brickfields, Kuala Lumpur.

5182 Khoo Swee Guan, Jeram Padang Estate, Bahau, Negri Sembilan.

5730 Leong Ah Soo, Norseman Estate, Ulu Sapetang, Taiping, Perak.

5363 Lee King Wat, Dip. Agri., A.I.S.P., Tampin Linggi Estate, Rantau, Negri Sembilan.

4112 Lee, R.A., A.M.N., Suite 305, Cathay Building, Mount Sophia, Singapore 9.

5266 Lian Kwen Min, A.I.S.P., C/D Division, Sepang Estate, Sepang, Selangor.

5694 Murugesu, S., Bukit Peninjau Oil Palm Scheme (Ladang Dua), P.O. Box 318, 4th Division, Miri, Sarawak.

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4934 Mohd. Zain bin Haji Idris, Ulu Tiram Estate, P.O. Box 710, Johore Bahru.

3626 Macdonald, A.R., 1003E Heretaunga Street, Hastings, New Zealand.

4239 Nowak, J.,A.I.S.P., 16A Dollis Park, London N. 3, England.

5562 Nair, P.P., Torkington Estate, Sabak Bernam, Perak.

4688 Pichaymuthu, A., 122 Kajang Gardens, Kajang, Selangor.

2834 Sandeman, H.A., Woodend House, Cross Green, Cockfield, Nr. Bury St. Edmonds, Suffolk, England.

5531 Thiagarajan, S., c/o Mr. Low Hung Keng, 238A Ipoh Road, Kuala Lumpur.

3237 Adcock, L.J., Rubber Adviser, Tree Crops Division, Department of Agriculture, Monrovia, Liberia, W. Africa.

4907 Krishnan, P., B 17, Gandhi Nagar, P.O. Calicut, Kerala State, S. India.

5475 Lim Men Jang, Sg. Lepar Estate, Sri Jaya New Village, Nr. Maran, Pahang.

5101 Mohamad Yusof bin Hassan, Bagan Datoh Estate, Bagan Datoh, Perak.

5733 Mohtar bin Abdul Hamid, Rajah Hitam Division, Sungei Bernam Estate, Teluk Anson, Perak.

4919 Parameswran, G., Hillside Estate, Seremban, Negri Sembilan.

5688 Yip Wai Wing, Telok Sengat Estate, Kota Tinggi, Johore.

New members

5806 Thomas, J.S., No. 12 Jalan 22/20A, Kampong Tungku, Sungei Way, Selangor.

5825 Elakie, E.N., Cameroon Development Coprn., Mukonje Rubber Plantation, Private Mail Bag 70, Kumba, West Cameroon.

5827 Low Ah Kaw, 17 Jalan Gambut, Kuantan, Pahang.

5828 Tan Yoke Cheng, Dublin Estate, Karangan, Kedah.

5829 Ng Hark Peng, Dublin Estate, Karangan, Kedah.

5830 Sumathri, V.G.V., Dublin Estate, Karangan, Kedah.

5831 Abu Hanipah bin Abdul Wahid, Dublin Estate, Karangan, Kedah.

5832 Chandapillai, M.M., Ansul (M) Sdn. Bhd., P.O. Box 465, Kuala Lumpur.

5833 Fuchter, J.H., Ciba-Geigy Agrochemicals, P.O. Box 251, Kuala Lumpur.

5834 Pang Yen Yong, Yule Catto & Co. Ltd., P.O. Box 104, Rengam, Johore.

5835 Omar bin Haji Harun, Ladang Bari, Sungai Tong, Kuala Trengganu.

5836 de Jonge, P., 227 Carmody Road, St. Lucia 4067, Brisbane, Australia.

5837 Goh See Hong, R.K.T., Bukit Kepayang, Triang, Pahang.

5838 Mohamed bin Sohor, West Estate, Carey Island, Port Klang, Selangor.

5839 Hall, Patrick G.S., Malayalam Plantations Ltd., P.O. Box 502, Cochin 3, South India.

5841 Abdul Razak bin Abdul Ghani, Tebong Estate, Tebong, Malacca.

5842 Yee Lung Fook, Geoffrey., Agri-Horticultural Trading, P.O. Box 253, Tawau Sabah.

5843 Jamaluddin Arshad, Riverside Estate, Bahagian Ichamaram, Kuala Selangor.

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Resigned

4622 Morton, D.J. (Overseas)

4769 Ouvry, R.D. (Overseas)

4691 Pillai, S.K. (N. Johore)

3806 Davies, W.M. (Selangor)

4950 Garland, G.R. (C. Johore)

4435 Chong Sin Fook (C. Johore)

Suspense list

4382 Krishnan, P.V.U.

Life membership

4239 Nowak, J., A.I.S.P., 16A Dollis Park, London N. 3, England.

4472 Nair, K.S.B., No. 61 Jalan Dato Klana, Seremban, Negri Sembilan.

Awards

V. Ranganathan, P.J.K., appointed a Justice of the Peace by HRH the Sultan of Perak in September 1971.

Dato R.G. Barrett, A.I.S.P., awarded the Order of the British Empire by Her Majesty Queen Elizabeth II.

Birth

BROWN: To Lynne and Geoffrey a son on 1st February, 1972 at Our Lady's Hospital, Ipoh.

Deaths

PAGE: Dr. Harold James, O.B.E., C.M.B., B.SC., F.R.I.C., F.I.S.P., in England, on 27th January 1972, at the age of 82.

THOM: Fred, S.M.J., P.I.S., J.P., passed away peacefully at Johore Bharu General Hospital, on 13th February, 1972.

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