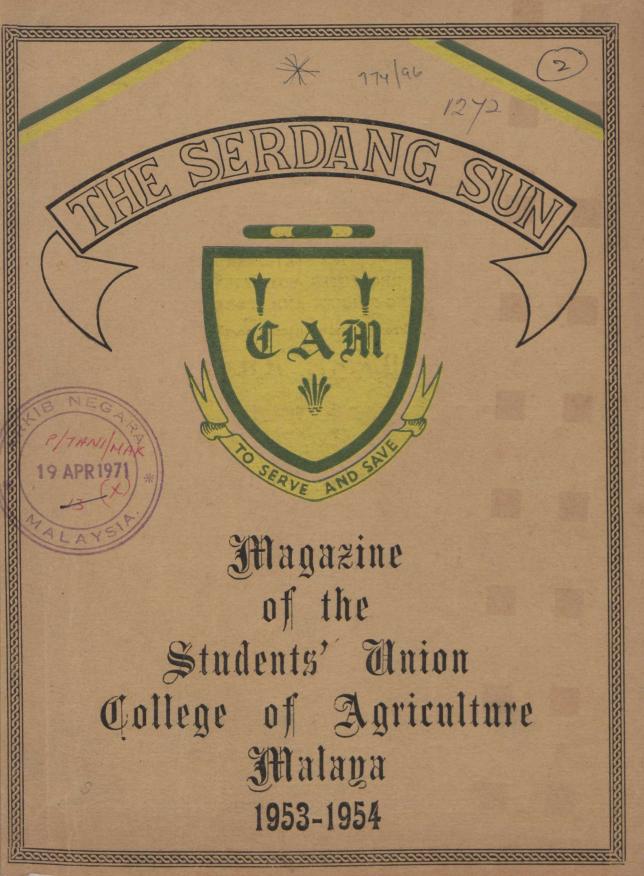


THE SERDANG SUN
COLLEGE OF AGRICULTURE
STUDENTS UNION
1953 - 1954



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The Students' Union,

THE COLLEGE OF AGRICULTURE, MALAYA, SERDANG, SELANGOR.

#### THE PRESIDENTIAL MESSAGE

It has always been my pleasure and desire to talk to you individually as often as I could, but as it is quite impossible to do so because most of you are usually occupied with work of one sort or another, I consider it a great privilege to be given the opportunity to address you one and all through the medium of this Magazine the publication of which is certainly the outcome of the hard work of its Editor and his colleagues. I must also say that the support given by all the members plays no less an important part in this achievement. The Magazine, as I see it, serves as a record of the activities and functions of the Union, and as it is published only annually I think it would be a good idea if other publications in the nature of pamphlets or any other forms were produced from time to time. Such publications if realised, could be under the management of say, a Publicity and Publications Committee.

I am very much impressed by that organisation called "The Emergency Relief Fund" formed through the initiative of a few enterprising members. The aim is to save as much money as the members can possibly afford and to pool the the savings into a common fund whence contributing members can get a loan in time of distress. Here is practised the spirit of self-help which if fostered on a large scale can go far to make of men and women a successful community. Well done!

Our Union has been in existence for seven years, and I am sure you agree with me that much constructive, work was done during those years. Therefore I wish to record here my sincere thanks to the past presidents and their supporters for the good and valuable services rendered to the Union and for bringing about such a condition as to make the administration at present much easier. I am also indebted to the Principal and his staff for being very helpful to the members all the time, and I hope this relationship will last for a long time.

I would like to draw your attention to the fact that the public is everyday getting more and more convinced of the necessity of providing higher technical education to the youths of Malaya and to that effect the creation of a Faculty of Agriculture in the University of Malaya finds high favour. What would be more fitting than to turn this College into such a faculty? I am sure you agree with me that there is nothing much to hinder an immediate introduction; even the financial problem will not be a limiting factor when such questions as the ultimate benefit derived from training under local conditions and the cost of maintaining students overseas are thoroughly considered. I would therefore call upon you to summon all efforts to get yourselves prepared for the great event, and while we are waiting for that longcherished dream the birth of the Faculty - to come true let us take full advantage of all the facilities academic and otherwise, that are now provided and at the same time strive to make life happy and interesting. A sure way of doing so is by giving due respect to the Union and its constitution. Let us learn through mistake here in order to gain some experience so that when we leave we will be fairly, if not fully equipped to play the role of useful citizens and to "Serve And Save" the land that is so faithfully giving us blood and breath, the land that we may rightfully call 'OUR HERITAGE.'

AHMAD A. SAMAH.



## KING'S HOUSE KUALA LUMPUR MALAYA

# FOREWORD

by

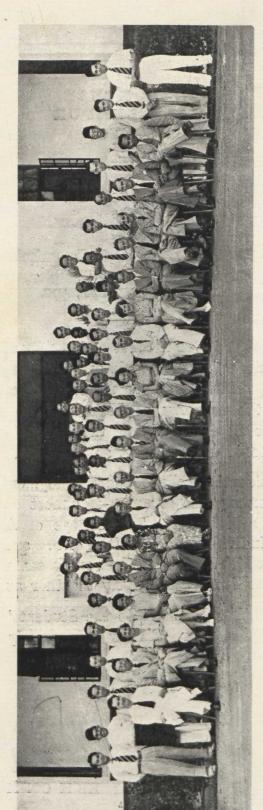
His Excellency the High Commissioner General Sir Gerald Templer, GCMG., KCB., KBE., DSO., ADC.

The second post-war number of the "Serdang Sun" goes to press at a time when the people are very much alive to the importance of sound and progressive agriculture as the foundation of the economy of Malaya. This record of the activities of the Student body of the College of Agriculture will therefore be of wide interest at this time.

In a residential college the development of a happy corporate life among the students is almost as important as their academic achivements. The College of Agriculture has achieved an individuality of its own, and created an atmosphere in which students of all races can work hard and at the same time live constructively together as a community.

I wish continued success to the Students' Union and to its effort to build a spirit of fellowship among students both past and present.

HIGH COMMISSIONER.



The Graduation Tea Party 1952/53.

Photo by Art Lite.

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# The Serdang Sun

No. 2

DECEMBER

1953

#### EDITORIAL.

We take pride in being able to bring out our second postwar edition after those fateful years that put a temporary cessation to its production. Much credit must be extended to the indefatigable Mr. Lee Buck Heng editor of the first post-war number. In face of so much difficulties, the most prominent one being finance, he was able to bring forth the first number of the Maggazine which our predecessors had kept flourishing in those pre-war years.

Let me take stock of this opportunity to emphasize that this magazine is the official organ of the Students' Union of the College of Agriculture, and let us hope that it will continue to serve as the perpetual source whereby members outside the four walls of the College can be kept informed of activities in the field of Agriculture. It is stressed from our very hearts that any literary criticisms or worthwhile suggestions which will lead to the betterment of this Magazine will be welcome by us and by new Boards each year. It is our fervent hope that greater enthusiasm and cooperation be shown to subsequent editors for success will be your pride.

Having to choose a career for oneself is making a very momentus decision in one's life. Much "weighing and balancing" should be devoted to the matter before one is chosen. Nowadays it is obvious that an agriculturist is as important, if not indispensable, as a mechanic or a doctor. Many an individual underrates the importance of agriculture, the Mother of all industry and the maintainer of human life. In agriculture, as in any other branch of study, one can climb on endlessly to different levels of achievement as long as one has ambition and ability. Farming is itself a business and like other business it demands good management plus two other important factors, truth and co-operation. In agriculture no amount of laboratory or college training will help a farmer to be successful for practical experience in the field is absolutely necessary.

To sum up everything it can be said that from the utilitarian standpoint, agriculture forms an important part of economic life in the world to-day. The Chinese has a proverb which helps to corroborate the above and is self-explanatory:

"Civilization is like a tree————Agriculture is its roots, Transportation and Commerce its branches and leaves————If the roots suffer the leaves wither, the branches break and the tree dies."

It is only natural that one will eulogize one's institution when an opportunity offers itself. This Institution is the only one of its kind in Malaya and we, the budding agriculturists of Malaya must contribute to the utmost towards aggrandizing the standard and reputation of this cherished Institution. There are healthy signs of an Agricultural Faculty being created in the not very distant future in the Malayan University. A pastoral country like Malaya is surely in dire need of such a seat of learning and it is our sincerest hope that every effort be devoted to help make this dream materialize. Not only then will this Institution cater for the needs of Malayan enthusiasts, but also the needs of those in the neighbouring countries of South-East Asia. With such a bright and promising future in the Agricultural profession in view it is sincerely hoped that more and more students will be absorbed into this Institution and that it will continue to supply to the pastoral country of Malaya the much needed agriculturists.

It is only fitting that we should put in words here the departure of Mr. H. M. James who during his short tenure of office as Acting Principal has effected much progress as far as work in the fields is concerned and he has proved himself to be a staunch friend, never failing to lend an ear to our troubles. To him we say au revoir and we now welcome our Principal Mr. O. M. Lee who has returned from leave to resume his former "rein of government."

In conclusion the Board wish to record here with thanks our acknowledgement to the Government for her kind donation, to the various advertizers for their whole-hearted support, to the Principal of the College for his advice and assistance, to the various schools and Institutions which sent us their Magazines and last but by no means least, to those Old Boys who had contributed generously towards the Magazine Fund.

L.P.S.

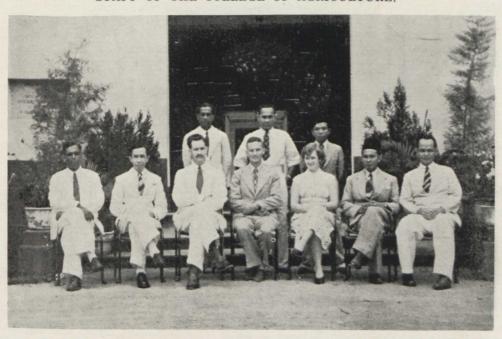
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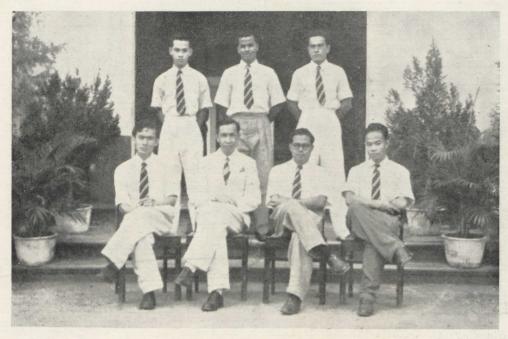


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# AGRICULTURE IS ART, SCIENCE AND ECONOMICS.

By P. V. Thevan

Agriculture is an ancient art—an art perfected by practice through the ages; an art which had reached a high level before science touched it. But with an increase in the world's population and a relative decrease in agricultural land, methods have to be found to get the greatest returns from the soil economicaly. So modern agriculture could be said to be a combination of art, science and economics. The fact can be illustrated by reference to any agriculture operation—be it ploughing the land, or the application of manures and fertilisers, or the destruction of plant pests. In this article the facts that modern agriculture is art, science and economics is shown by special reference to the application of artificial nitrogenous fertilisers.

It is a well-known fact that manures and fertilisers are applied either to increase the supply of plant food elements or to replace the nutrients used up by plants. Though manures and fertilisers are beneficial to crops, yet in good husbandry many factors must be considered before they are applied to the soil. Let us first consider some properties of two common nitrogenous fertilisers (a) Nitrate of Soda (16%N) and (b) Sulphate of ammonia (21%N) and from them deduce the factors that must be taken into account before they are used.

- (a) Nitrate of soda is very soluble and as such is readily available to the plant. The nitrogen released is in the nitrate (NO3) form (a form in which plants take in nitrogen). But this is an acid radicle and is not retained in the soil as it does not take part in the base exchange process. This being the case, the nitrate will be a waste if not absorbed by the plant. The only fraction of the fertiliser that will be retained by the soil is sodium, and if nitrate of soda is frequently applied in large quantities it is liable to impair the structure of heavy soil by the formation of sodium clays.
- (b) Nitrogen in sulphate of ammonia takes part in the base exchange process as Ammonium ions and is retained in the soil where it is changed to the nitrate form by nitrification. It is in the latter form that most plants take up nitrogen from the sulphate of ammonia applied to the soil. The application of ammonium compounds such as sulphate of ammonia however increase the rate of loss of lime and produce acidity in the soil. So long as the acidity does not go beyond the critical range of crops it causes the floculation of soil colloids and that improves the soil structure.

The first factor to be considered is whether the soil lacks the elements to be supplied by the fertiliser or not. This can be done by scientific means either by carrying out experiments in the field itself or by physical and chemical analysis of the soil in the laboratory or both. The question of which fertiliser, how much of it to use, when and how to apply it comes in. We know that repeated application of large quantities of sodium nitrate on heavy soil may cause the formation of sodium clays and that sulphate of ammonia under similar circumstances increases the acid content

of the soil. So when choosing between these two fertilisers the properties of the soils must be considered. Bearing in mind that nitrate of soda and sulphate of ammonia are highly soluble and their nitrates cannot be retained it would not be worth applying them before the plant reaches a vigourously growing stage.

Next, let us see how to apply the fertiliser to the best advantage; that is, the art of application. Both the fertilisers are used as top dressing and are shaded on application. If the fertilisers are incoperated in the soil they go into solution rapidly and become unavailable to the plant, for plants take in only a little nutrient at a time.

Now comes the question of how much fertiliser to use. Many think that the increase in crop produced is directly proportional to the quantity of fertiliser applied. This is a false conception, for the response of crops to fertiliser does not increase correspondingly to the amount of fertiliser applied. So it would be shere waste of money to apply large quantities of fertilisers. The best method is to apply small quantities at frequent intervals—LITTLE BUT OFTEN.

Agriculture as it stands today, has swung a great deal from being merely an ancient art. Through years of practice it has become an embodiment of art, science and economics.

Wisdom is not finally tested by the schools, Wisedom cannot be passed from one having it to another not having it, Wisdom is of the soul, is not suspectible of proof, is its own proof.

Walt Whitman.

No one is useless in this world who lightens the burden of it to anyone else.

Charles Dickens.

\* \* \* \* \* \*

Beauty is truth, truth beauty—that is all Ye know on earth and all ye need to know.

Keats.

\* \* \* \* \* \*

He who has a thousand friends has not a friend to spare, And he who has an enemy shall meet him everywhere.

Emerson.



# Life Saving Oils

One thousand lives per hour—this was the malaria death rate in the tropical countries forty years ago. Research established that mosquitoes conveyed the infection and that they bred in water. Then special oils were developed which would poison and suffocate the larvæ by forming a film over the waters they infested.

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One Gallon Per Ten Acres



#### RABBIT KEEPING FOR PLEASURE AND PROFIT.

By Mohd. Isa bin Ibrahim Shah.

The aim of this short article on rabbit keeping is to give information to those who are hovering on the brink of the hobby and to enable them to start off easily. The animals are clean, and to breed them is a real pleasure. Few other hobbies are as peaceful and entertaining as this one.

Rabbits are profitable animals, easy to manage, and require very little attention and need very little space. They can be bred for the market, for ornamental purposes or for meat. Rabbit pie! Yes, how would you enjoy that?

In common with most other hobbies, it is a really sound policy to start in a small way as small beginnings provide practical experience. The enthusiast starts with a few rabbits, and in a short time he realizes that he would like to be a rabbit breeder rather than a rabbit keeper.

It is generally acknowledged that the most commonly kept rabbits are the small type, with an average weight of seven to ten pounds. Rabbits, especially the small ones, are noted for their ability to reproduce rapidly. A doe, when well looked after, will produce as many as twenty-five young ones, in three or four litters in a year.

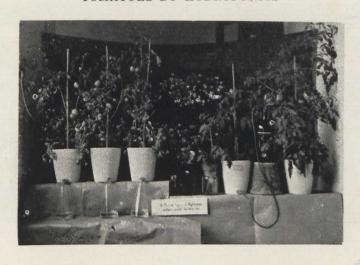
This hobby does not call for a large expanse of land. A small piece of ground covering an area of twenty-five square feet, provides sufficient space for ten mature rabbits. The pens can be erected at any suitable place—anywhere in a garden or even in a tiny urban backyard. However, the ideal site is a partly shaded spot where a tree keeps the sun off the ground for part of the day.

The housing presents but a small problem as the rabbits can do extremely well in cheap houses. Soap boxes (which are available no matter where you live) can successfully be converted into suitable hutches. Diagram A provides a design for an inexpensive rabbit hutch, the size of which depends upon the number of animals kept. The walls can be constructed of planks, but if it is preferred, small-meshed wire netting can be substituted; but wire netting should not take the place of the slatted floor, as the tiny feet of the young rabbits will slip into the meshes and bruises will result.

A mound about three feet high may be built in the run and small holes are dug parallel to its base. The rabbits will extend these holes, and later on they will be turned into nests.

The males should be kept in seperate hutches but the females should be allowed to lead a communal life.

## TOMATOES BY HYDROPONICS



GRADUATION TEA PARTY 1952/53.



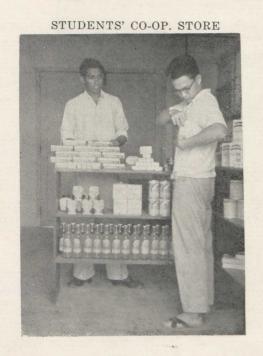
# STUDENTS AT WORK

SURVEYING IN PROGRESS

STUDENT ATTENDING TO HIS VEGETABLE PLOT







A VISIT TO THE HONG FATT TIN MINES



#### Breeding

Does should not be mated until they have reached maturity. This stage is attained when they are between seven to nine months old. When a doe is in season (indicated by her display of restlessness) she should be left with the buck for service. To ensure the production of good off-spring, do not use bucks less than twelve months old for mating.

The gestation period is thirty-one or thirty-two days. After twenty-six days of pregnancy, the doe usually begins to pull the fur from her abdomen to build the nest. At this stage it is a good practice to supply her with finely cut straw or dried lallang. She may build her nest in the hole she has dug but is recommended that a hutch be specially provided, for it has often been found that ants prove to be real enemies in that they attack the helpless youngs. When the young ones are born they are both bare and blind and the mother keeps them warm by covering them with fur or straw

About ten days after birth, the young ones will creen out of the hutch or hole; and they are weaned at the age of seven to eight weeks.

#### Feeding

Feeding is a simple matter. Rabbits require a lot of greens which can be supplied by giving them sufficient kangkong, or leaves of sweet potatoes and bananas. They will eat almost all vegetables and have a special liking for roots such as sweet potatoes or radishes. When they are fed with a reasonable amount of green leaves they require only a modest amount of grain ration and protein supplement. A supply of fresh and clean water is a necessity, so is a small quantity of salt. As rabbits feed mostly in the dark, the substantial meal should be given in the evening, but care should be taken not to provide too much food as surplus left in the run is a danger to their health.

It has been observed that rabbits do not like lawn clippings, but if they gain access to any green grass they nibble off quite a number of the leaf blades. If the mobile rabbit-house as designed in Diagram B is placed at any spot with sufficient green grass, the rabbit in it will soon act as a small lawn mover.

So, if you have any inclination towards rabbit keeping, just proceed and with a modest outlay I can assure you the hobby will soon give you a real and lasting pleasure.

No ray of sunlight is ever lost, but the green which it wakes into existence needs time to sprout, and it is not always granted to the sower to live to see the harvest. All work that is worth anything is done in faith.

Albert Schweitzer.

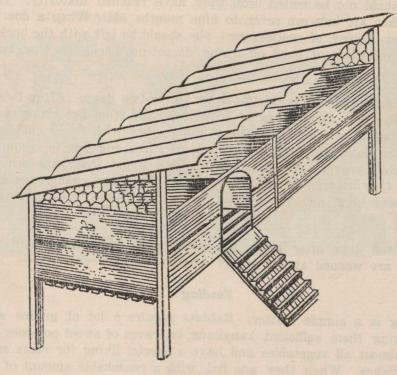


DIAGRAM A.

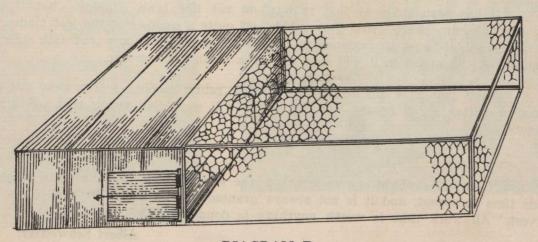


DIAGRAM B.

### RICE PROBLEM IN MALAYA.

(An outlook of self-sufficiency of rice in Malaya.)

By C. H. Yeoh

Malaya is nearing the threshold to Independance and it is very important that the Government should see that self-sufficency of rice, the staple food crop of the peoples in Malaya, is obtained. Ever since the beginning of time it can be said, the problem of food has been one which has aroused and held universal interest. In proving the truth of this statement, we need not go further then Malaya. more food" campaign has long been started and it is found that the Government has spent about \$130 million for the import of rice to Malaya for the first half of the year 1952/53. This means draining part of Malaya's wealth. The financial position of Malaya would not be so stranded if we could produce our own rice for the whole population. The large sum of money spent by the Government in importing rice yearly is a great financial aspect to Malaya. Government should encourage and finance the project-"grow more food". Money spent towards self-sufficiency of rice is not a waste but an asset to Malaya's economy. We, Malayans should be proud of ourselves if we can produce rice for our own consumption. The population in Malaya is at its rapid increase, and what will happen if say, there is a sudden cessation to the import of rice? There is needless to explain the seriousness about that for each and everyone of us in Malaya had gone through that ordeal during the "dark days" of the Japanese regime.

Here is an editorial comment on "More Facts On Rice" published recently by the "Straits Times." "Malaya rice harvest figures are no exception. The 1952/53 crop was second largest on record, nearly a third bigger than the previous season, 331,000 tons, and within one half of one percent of the record harvest of 1950/52. The annual rice supplement to the bulletin published, broadens the picture, and perhaps, will even help the Federal Government in its leisurely plans of the further development of Malayan Agriculture economy. That Malaya grew last season, 441,000 tons of rice, almost a record, was merely coincidental to the reaction of a Rice Production Committee. It went on to stress, "The Government took no special steps to improve the harvest." The paper also pointed out that there is the development plan estimated that Malaya has another 760,000 acres of potential padi land but all these estimated figures and plans come slowly to harvest and nothing seems capable of stirring the Government to the requisite action.

We cannot depend much on our "Kampong folks" to produce ample rice to feed the whole population. We could be happy if those so called "nonscientific farmers" can produce enough for their own personal need. Their method of farming can be termed more or less as intensive farming. They lack in scientific knowledge and make the best of matters by employing such methods as have been handed down by their forefathers or which they have gained through the hard school of experience.

It is a fact that rice production in Malaya is not sufficient to feed her growing population and we cannot go on with human energy and labour to achieve self-sufficiency of rice. Tractors should come into play. It is high time to introduce mechanical cultivation here. We seldom see mechanical cultivation being put into practice in Malaya unless we go to some of the big Agriculture stations. This set-back of having insufficient modern machinery can partly account for the undevelopment of Malaya in the rural areas. A tractor can work at a rate of one acre per hour and for the same duration of time, human labour can work but a fraction of it. Scientific ways in every respect should strictly be introduced, if high possible yields of rice are expected. Further the Department of Agriculture in Malaya has drawn conclusively that better yields could be obtained through suitable application of fertilizer and better seeds.

With the introduction of mechanical cultivation and effective up-to-date Agriculture techniques and combine with modern research work, there comes the birth of the hope of self-sufficiency of rice. The hope that our Malayan soil will produce more than enough rice to feed her entire population. "And what is more vital—produce it at a price which all can afford to pay. Thus we raise the standard of living for all by bringing down prices."

To produce a mighty book, you must choose a mightly theme. No great and enduring volume can ever be written on the flea though many there be that have tried it.

Herman Melville.

\* \* \* \* \* \*

If the day and the night are such that you greet them with joy and life emits a fragrance like flowers and sweet-scented herbs is more elastic, more starry, more immortal; that is your success.

Thoreau.

\* \* \* \* \* \*

I personally consider that a woman who shows the power of her intellect is more to be respect than the woman who shows the power of her legs. But men always prefer the legs.

Marie Corelli.

\* \* \* \* \* \*

If for a tranquil mind you seek. These things observe with care: of whom you speak, to whom you speak, And how, and when, and where.

Anon.

#### HYDROPONICS.

(By A2)

Hydroponics? Well according to A Dictionary of Biology it simply means a "system of large scale plant cultivation developed from water culture methods of growing plants in the laboratory, in which the plants are allowed to root in some relatively inert material, e.g. quartz sand, which is irrigated with the nutrient solution."

This sounds very easy. I am sure everybody will agree to that, but very few Malayans have endeavoured to practise it either as a hobby or as a commercial undertaking. Attention has not been paid to this system of gardening probably because Malaya is fortunate to have plenty of land for cultivation and also plenty of cheap labour to achieve maximum crop production. Hydroponics has many advantages over the ordinary method of vegetable or flower growing; primarily that of better plant 'food' control, less fertilizer waste, less operating labour required and adaptability in areas where suitable agricultural soil does not exist.

Most of us have very little idea about hydroponics. It is a matter of argument amongst most of our agriculturists who with pessimism never realise that it is possible to feed food crops and flower plants with a few spoonfuls of 'salts' in solution. Hydroponics in Malaya is still in its infancy. A few enthusiastic college students with the help of Mr. G. R. Kurup are making headway into this matter and the results they obtained are encouraging. They are still experimenting to find the different formulae (suitable to different types of crops) for plant nutrients under Malayan climatic conditions.

The basic principle of hydroponics is that the plant roots develop and grow in a liquid medium which contains all the plant 'food' elements. Sufficient oxygen must be present in the immediate proximity of the roots. There are two distinct ways by which hydroponics can be practised:—

- I. Water culture—This is the system by which some of the roots are suspended in a nutrient solution and some near the crown are allowed to permeate a solid medium, e.g. sand. This technique which is familiar to the students of Botany has in recent times developed sufficiently to raise quick growing vegetables and flowers on a domestic or commercial scale. Several devices have been tried at the College and the one which proves the best is the "Wick system,," as shown in figures Ia and Ib.
- II. Sand culture—In this system the roots are allowed to permeate a solid inert medium which is frequently watered with nutrient solution. This type of culture is more reliable than that of water culture, for not only a permanent anchorage is supplied to the plants but also oxygen is easily available to roots because the sand is porous.

At the College students are inclined to the sand culture method of hydroponics and their indicator crop is tomato. The method used is sub-irrigation, by which nutrient solutions can be collected and used again. Whether the plants are grown in pots (dia: II) or in tanks (dia: I) the principle is the same.

In hydroponics the plant nutrient solution is the primary factor which determines the growth of plants. The solution should be prepared as soon as the seedlings are ready to be transplanted. The making up of solution is based on the unit of plant availability of the particular elements. A just sufficient amount of 'salt' is applied, for if in excess nurients equilibrium between elements is upset, toxic symptoms appear in leaves, plant growth is affected and death eventually takes place. The nutrient solution is made up of two types of elements.

I. Major elements.

II. Trace elements.

A general ratio of major elements is drawn out, though modification is sometimes necessary to suit different types of crops, e.g. leafy or fruit. For tomatoes grown at the College the following formula is found to give satisfactory result.

N.	P	K.	Ca.	Mg.	S.	
8.	2.	6.	3.0.	1.5.	4.5.	(in unit)

Here one unit concentration means I/I000 of the gram atomic weight per litre concentration of the element. To prove how to obtain that formula is rather complicated. It is sufficient to say that to make a gallon of nutrient solution the following amounts of major elements are needed.

Potassium nitrate .. .. 3.5 gms.
Ammonium sulphate .. .. 0.6 ,,
Common super phosphate .. 3.4 ,,
Magnesium sulphate (gypsum) 1.7 ,,

Trace elements: As trace elements are used in small quantities stock solutions of these elements are usually prepared.

a. Iron. 50 gm. of ferrous sulphate is dissolved in acidified distilled water to make a solution of one litre (1000cc). (Acid is necessary to prevent iron from becoming unavailable to plants. 10cc. of sulphuric acid is added to a litre of distilled water).

To every one litre of nutrient solution 0.2cc. of iron solution is added.

b. Four other trace elements manganese, boron, zinc and copper, are made into another stock solution.

28 gm. of boric acid

20 " " manganese sulphate

2 ,, ,, zinc sulphate

2 ,, ,, copper sulphate

These are dissolved in distilled water acidified by 10cc. of concentrated sulphuric acid to make a litre.

To every one gallon of nutrient solution 0.2cc. of this solution is added.

It is worthwhile to remember that no metallic things, e.g. watering cans, buckets or spoons, unless they are painted with asphalt, should be in contact with the nutrient solution; for there is a tendency that these metals will dissolve and cause toxicity to plants.

Construction of Cultural Unit: For a beginner it is not unwise to start with the pot rather than the tank system of sand culture. A detailed description is given below.

The glazed pot is cleaned properly with water, and its hole fitted with a one-holed stopper through which passes a bent glass tube, as illustrated in diagram II. The hole is covered on the inside with a pad of glass wool. This is to prevent sand passing into the glass tube and thus blocking the passage of water in the process of flushing. The pot is now filled with sand. Some water may be poured onto the sand to make it sink into the pot. More sand is added until its level is just about half an inch below the top level of the pot.

If the sand is to be made free of organic matter it is soaked in a 5% solution of formalin for two days. The pot is covered with newspaper to discourage vapourization of formaldehyde. The sand is then washed with water till no smell of formulin can be detected, then it is ready to be sown.

The Winchester quart bottle is nearly filled with the nutrient solution and is stoppered with a two-holed stopper. Through one of the holes passes a long glass tube and through the other a short bent one. The long glass tube is connected to the glass tubing in the pot with a yard of rubber tubing. The unit is now ready for use.

## Unit Operation:

Planting: Seeds may be sown directly on the sand or seedlings may be transplanted. In the latter case, the transplanting operation should be carried out very carefully to minimise the damage done to roots. There is no harm in gently washing the roots of the seedlings to remove the adhering soil. Make a small hole in the centre of the sand, place the seedlings carefully in the hole and cover the roots gently with the sand.

Flushing the sand with nutrient solution: This operation is carried out by placing the bottle at a level slightly higher than the top level of the pot. Sometimes air has to be blown through the small tube in the bottle to complete the siphon action. Leave the bottle at the raise level until the sand at the top is just wet. Then put the bottle down. The solution now drains back into the bottle. The bottle should now be kept at such a level that complete drainage occurs in the pot. See illustration II. The process of flushing should be carried out as often as is necessary, usually 3 times a day 9.00 a.m. 1.00 p.m., 5.00 p.m.

If the unit is placed under direct sunlight the bottle should be kept covered, so that the solution does not get warm and algae grow in the solution.

Daily addition of water: Water is lost from the plants through transpiration. The loss increases with the increase in the size of the plant. The loss of water through evaporation from the sand surface and through transpiration, naturally reduces the bulk of the solution. This in turn will increase the concentration of the nutrient solution. The increase in concentration should never be allowed to go beyond a certain limit. To maintain the concentration of the solution at a more or less constant level fresh water should be aded daily to make up for the loss. The best thing to do is to add fresh water each morning to maintain the original level of the nutrient solution in the bottle.

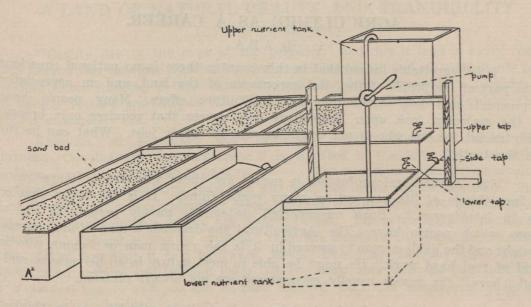
Changes in the Nutrient Solution. There is a gradual loss of plant nutrients from the nutrient solution through absorption by the growing plant. On the other hand there are certain elements which are present in the chemicals used in the preparation of the nutrient solution, but which are not essential for plant growth and are therefore not removed from the solution. The non-essential elements thus tend to accumulate in the solution in the course of time. Considerable accumulation of non-essential elements in the nutrient solution may have an adverse effect on plant growth. The solution prepared by using the formula given above has been used continuously for over two months without any harmful effects on the plants. If, however, it is found that the plants are not growing well, the best thing to do is to discard the used solution entirely, and use fresh nutrient solution instead. Sometimes it may be necessary to flush the sand with water before using the fresh nutrient solution. It has been found to be a good practice to change the solution periodically, say once a month.

Hydroponics is a highly artificial but not an unnatural method of crop production. It is a method of cultivation by which labour is greatly minimised; no back-breaking changkolling, no ploughing, no manuring and no watering during dry weather. It is a direct route to maximum crop production in agriculture. Unavailability of good fertile soil does not become a problem anymore. An enthusiastic vegetable or flower amateur grower in a crowded city or town where land is so limited can, without fuss, indulge in his hobby with only a few dollars for pots, rubber and glass tubings, bottles and nutrient salts, while those who can afford, I am sure, will not hesitate to build two or three tanks for flowers or hygienic, raw home-produced vegetables for the table.

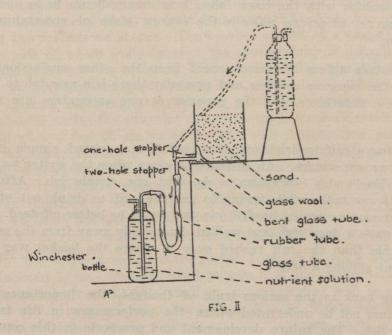
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The man who has not anything to boast of but his industrious ancestors is like a potato—the only good belonging to him is underground.

Sir Thomas Overbury.







#### AGRICULTURE AS A CAREER.

By A.B.A.

It is regrettable indeed that in this country there is no national consciousness on the part of the people of the vital importance of the land, and an appreciation of the prospects and deep satisfaction that Agriculture offers. Many people here, in fact the majority, look upon Agriculture as a career that requires only bronze and is only meant for one who is not bright enough for other jobs. What can be further from the truth?

The Agricultural profession is meant for those who are better educated in the finer things of life and not as many would think, "It is for those that aren't high in intelligence." Such unsupported statements merely perpetuate the vague notions which people have. The Agricultural line demands a man of art, science and foresight and the likely person to succeed in it is the young man or woman who is not afraid of real hard work. He must be able to meet nature in all her moods, and true to all "hers," the moods usually encountered are not always pleasant.

Usually somebody decides to take up Agriculture only because he thinks that he loves the countryside, basing his opinion, of course, on the impression of the country-life during week-end trips. It requires more than that. It requires the man of art with a genuine love for the countryside, who would look at the unspoilt country-side as nature's paradise and who would not think that even if it meant the severing of social relationships with the town folks, long dreary hours to be spent at home at nights and a journey of several miles to the nearest place of entertainment as something horrifying.

Agriculture differs in every respect from the other professions and careers. No one job is the same as another and everyday there is a new job to be tackled. A new task, a new experience, and the experiences one encounters are not all full of drudgery.

Teaching a calf to drink out of a bucket may sound simple enough, but it demands quite an experience. An instance is given when the writer was once detailed to the Animal Husbandry Stockfarm to do that one simple job. After an hour of getting milk shower baths while trying to get the calf to drink out of a bucket, he decided the calf was a vacuum-headed one and would be better off dead. Setting down the bucket he gave a deep sigh and walked disgustedly away from the pen. No sooner had he done this than the calf rushed over to where the bucket was and drank all the milk without spilling a drop!

Coming back to the serious train of thought, the importance of the Agricultural man must not be underrated where the performance in life is measured by community service. The future development and prospects in this country lie in the laps of those who are really interested in this noble profession—AGRICULTURE.

## A LAND OF NATURAL BEAUTY AND TRANQUILLITY

(By Koh Theam Hee)

"Beauty lies in the eyes of the beholder" and this is true in every respect. No one person can convince another of the untold beauty of a place without his actual witnessing it for "seeing is believing." It is most pitiful that only a precious few could admire Nature and Author like Thomas Hardy and Poet like Wordsworth are charming examples.

Kuantan, an out-of-the way town, lies on the East Coast of the Malay Peninsular. Coupled with its remoteness it is situated in the hilly State of Pahang. Thus from the geographical point of view we see that it suffers a double disadvantage. Nevertheless it is accessible by road, sea and last, but by no means least, air. In the field of progress little development is being effected though there are promising signs of its attaining prominence in the not distant future. The potentiality of its becoming the capital of Pahang serves to eradicate from the minds of the populace the minconception of the fact that it is a backward town. One may harbour the idea that Kuantan is an obscure and isolated place but one must also face the fact that it is a land of natural beauty and you can be rest assured that the subsequent description cannot be over emphasized.

The pride of Kuantan lies in its beaches Tourists from all parts of the Federation have visited its beaches and I am positive that the image of these places will never escape from their minds. I have visited the "Beach of Passinate Love" at Kota Bahru, the beach at Port Dickson and many other sea-side resorts but Teluk Chempadak is I should say, beyond any shadow of doubt, still unchallenged. Its name is derived from the delicious Malayan fruit "Chempadak" which was once found to be plentiful along the arenaceous shores. The beaches consist of a vast expense of golden sand on either side of which could be seen the added beauty of gigantic rocks. Looking seaward one could see the sparking blue water flowing placidly over the sandy shores. Such an inviting and captivating sight makes it inevitable for one to jump in for a dip. Looking shoreward one could see picnickers, young or old, tall or short, fat or thin, relaxing under the graceful casuarina trees, some enjoying a delicious and appetising meal while a few others, lulled by the cold, invigorating sea breezes have fallen into a nap. Another beach worthy of mention is that at Batu Hitam which is about seven miles from Kuantan town. A detailed description of these beaches would be too lengthy so it is better imagined than described. The tranquillity of these beaches is often interrupted during week-ends and public holidays. I think it is the feeling of salt water on one's body, the unmitigated sun's rays on one's back and the sand under one's feet that make the sea-sides worth visiting.

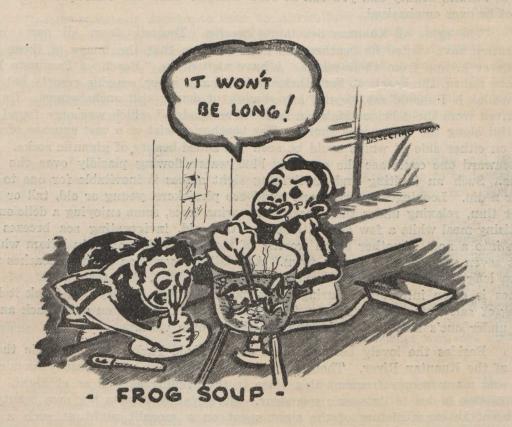
Besides the lovely beaches there is the Hyde Park lying alongside the left flank of the Kuantan River. Though small in area it is one of the beauty spots of the town and many people frequent this place in the evening as well as at night. Such an attraction is due to its scenic splendour. Here Nature depicts her own beauty and to present an exact picture of the sight spent on a moonlit night at such a place requires the pen of a poet and the brush of an artist.

Apart from being renowned for her sea-side views, Kuantan is an ideal town for those who prefer a solitary and peaceful countrylife. I am sure a sea-side bungalow at Telok Sesik is, undoubtedly, the most appropriate place to live a tranquil and healthy life. The town itself is not a big one with a population of ten thousand inhabitants. The populace, on the whole, are quite business-like and industrous but most regrettingly there is a flaw in them; they seem to have adopted the policy of "Non-Intervention."

There are merits and demerits of a country-life. A man fired with aesthetic ideas would find a place, like that of Kuantan, interesting to live in but to one who cannot appreciate Nature's beauty and who is more interested in expanding his mental horizon, such a place definitely would be of no appeal to him. The words of Charles Caleb Colton are most fitting and self-explanatory:

"If you would be known, and not know, vegetate in a village; if you would know, and not be known, live in a city."

beinlosi bus equition us ti natus

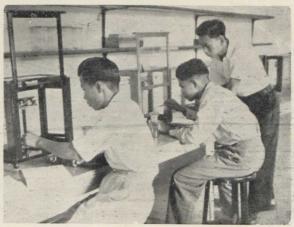


# STUDENTS AT WORK

CHEMISTRY
IN THE BIOLOGY LABORATORY

IN THE BALANCE ROOM





MEASURING pH WITH A POTENTIOMETER

BIOLOGY IN THE CHEMISTRY LABORATORY





# STUDENTS AT WORK

MECHANICAL CULTIVATION

WORK AT THE GREEN HOUSE





EXPERIMENTAL WORK AT THE DRY PADI PLOT

LIMING IN THE SAWAH





#### ONE OF THE ASPECTS OF R.I.D.A.

By "Mahar"

The Bill which incorporates RIDA with the object of stimulating and facilitating economic and social development in the Federation has been passed by the Federal Legislative Council. In short, RIDA has been assigned a task in the performance of which it is not too much to say that the Authority will pay particular attention to the rural areas.

Up to the present the progress made by RIDA in its work has been comparatively slow. This is due to the lack of suitable officers to carry out the duties assigned to RIDA. The slow progress made may also be due to the lack of cooperation from States or Settlements. In spite of these handicaps, RIDA has been able to display what it can do. This is exemplified in Grisek where RIDA has established a big rubber factory to cater for smallholders in that area. The factory cost the tax-payers no less than \$350,000.

The basic idea in establishing this factory is to give the smallholders a chance to produce better quality rubber and hence increase their income. This will also give the smallholders more free time as there is no necessity for them to process their own latex. It is hoped that the increased leisure thus gained can be utilized for economic purposes such as growing crops and doing part-time jobs.

The factory at Grisek is capable of producing more than four thousand pounds of dry rubber per day and if this figure is attained the cost of production will be at a minimum. The cost of production per pound depends upon the amount of rubber produced. The greater the quantity produced the lesser will be the cost of production per pound. Judging from these facts, it is likely that RIDA has incurred a loss in operating this factory, since the daily production of rubber has not reached the target figure.

The failure to maintain the daily production of rubber at a maximum shows that not all the smallholders at Grisek sell their latex to the factory. This situation may be due to various reasons, a very probable one being the lack of understanding on the part of the smallholders. It is likely that they have not grasped the real purpose behind the establishment of the factory. If this is the case the smallholders, however, cannot, be blamed as practically all of them are folks with little or no education who tend to become highly suspicious when dealing with government agencies, especially when things are not explained clearly to them.

Another probable reason may be connected with the management of the factory which calls for quite a large full-time paid staff. There is also the question of depreciation to be considered. All this adds up to a higher cost of production which in turn means a lower price paid to the smallholders.

The smallholders sell their rubber to the factory in the form of latex but are paid in terms of the dry rubber content of the latex they bring in. It is likely that they are suspicious of the method adopted in estimating the dry rubber content of their latex. Whatever method may be employed, there is always the possibility that the estimated weight may turn out to be less than the actual weight.

It is also highly probable that most of the holdings in that area are old, hence their yield poor. Consequently, the latex collected is not sufficient to produce the expected figure of four thousand pounds of dry rubber per day, even if all the small-holders were willing to sell their latex to the factory.

If these are the real reasons behind the apparent lack of success in the project at Grisek, then RIDA could do well by sending out an investigation team to find out the truth of the situation at Grisek, and accordingly take steps to induce smallholders to sell their latex to the factory.

In contrast to the factory at Grisek, there is in Sungei Buloh, Malacca a factory which is operated by the kampong people with financial aid from RIDA. This small factory is capable of producing approximately two hundred and thirty pounds of dry rubber per day. The management of this factory, which is no more than a shed and does not have all the complicated modern equipment as that at Grisek, is very much simpler and hence the cost of production lower. It is therefore not surprising to see that the price received by smallholders is on the average better than that offered by licensed dealers.

As a matter of fact, there has been an attempt by dealers to break up the factory at Sungei Buloh by offering better prices to the smallholders there. The attempt, however, has been unsuccessful. Nevertheless, it is not far-fetched to say that such an attempt may occur at Grisek, though there is no substantial evidence to this effect. If such a situation should arise RIDA is capable of exercising its jurisdiction provided in the new Bill with a view to controlling the purchase of small-holders' latex in that area, so that production at the factory may be kept at a maximum. Hence the cost of production per pound of rubber will be reduce with the result that smallholders will get a better price for their rubber.

RIDA is justified in taking such an action since it has been given the task of developing the economic resources of that area.

Another measure that can be taken to off-set this possible challenge from licensed dealers is to cancel their licences. However, this measure if resorted to, would be unfair to other estate owners in that area since the dealers also cater for them. Besides, the smallholders can always sell their rubber to other dealers away from the area.

As things stand to-day, RIDA has not made much headway in its task. However, with the passing of the new Bill, which takes effect from January 1954, RIDA's mission should be more easily and quickly accomplished.

(In writing this article "MAHAR" is greatly indebted to "BHL").

#### SOME ASPECTS OF HUMUS.

(By Mohd. Isah bin Ibrahim Shah)

The value of humus has been emphasized as far back as in the days of the early Greek and Roman philosophers, and the practice in the utilisation of humus for the maintenance of soil fertility dates back to hundreds of years.

This substance is so highly complex in nature that the solution to a good number of problems concerned in its study has yet to be found.

For simple understanding humus may be defined as the dark-brown, colloidal substance formed as the result of disintegration of plant and animal materials and possessing certain chemical and physical properties.

#### Formation of humus

Under favourable condition, the plant materials and animal tissues that go into the soil are attacked by innumerable micro-organisms such as bacteria, mould, fungi and algae. Simple carbohydrates such as sugars and starches are decomposed rapidly and the decomposition of these substances provides sufficient energy for the living organisms. The protein and albuminoid fraction of the organic material goes to form the bodies of the organisms. Cellulose is attacked mainly by termites in certain localities but it has also been found that fungi dissolve the cellulose to a great extent by enzyme action. Lignin is more difficult to decompose and as a result there is an accumulation of this substance in the soil.

The life of the micro-organisms is limited to only a short period, and when they die, their protein-composed bodies combine with the accumulated lignin to form ligno-protein complex to which the term humus is applied. We see therefore that humus is not only composed of simpler substances that have been broken down from more complex ones, but also of a number of compounds that have been synthesized by the micro-organisms.

It is also important to remember that the plant and animal remains have a definite ratio in regard to the contents of the elements carbon and nitrogen. The relationship of the total carbon and nitrogen, contents of the organic matter plays an important part in microbial activities. It has been found out that the suitable materials are those with the C:N ratio of about II:I. If the C:N ratio is very much wider than this the activities of the micro-organisms will be retarded unless enough nitrogen is available for microbial use. There is now every possibility that the micro-organisms may turn to readily available nitrogen in the soil such as ammonium salt and nitrates to make good for the nitrogen deficiency and the organisms become active once again. This will cause a reduction in the amount of soil nitrogen. Plants growing under such conditions, will have to compete with the micro-organisms for the nitrogen and it is possible that they may suffer from acute nitrogen starvation. This immobilization of soil nitrogen in humus formation is temporary and the nitrogen is returned to the soil during its decomposition.

Importance.

Humus is the main source from which the crops draw their requirements of nitrogen. Shall amounts of other plant-food elements are also released during its decomposition.

The effect of humus on sandy soil is of the utmost importance. This is chiefly shown in its binding effect on sandy particles, causing an increase in the water holding capacity of the soil.

The good water-absorbing capacity is not desirable when we deal with clay soils as their water content is already too high and the addition of humus will deteriorate the soil condition. But much good will result if calcium is present. In this case, humus accelerates the formation of coagulum which affects the binding of the clay particles together, resulting in the formation of crumbs. This aggregation of soil particles will cause a great increase in pore spaces that will facilitate drainage.

Drainage may cause leaching of free cations such as potash and calcium. But humus particles in soil however are able to absorb and retain these basic ions thus prevent their loss to a considerable extent.

The concentration of hydrogen ions in the soil determines its suitability for the growth of crops and that, too high or too low a concentration would both be unsuitable. The presence of humus has been proved to regulate the concentration of hydrogen ions.

Humus tends to increase the availability of phosphorous because some of the humus fractions will interact with the rock phospates in the soil thus inceasing the solubality of the  $P_2$  ()5. Sufficient evidence has been gathered to show that humus provides a source of iron to both plants and micro-organisms.

The humus particles are negatively charged and they behave like a large anion carrying with them a large number of adsorbed exchangable cations such as Ca<sup>††</sup>, H<sup>†</sup>, Mg<sup>††</sup>, K<sup>†</sup> and Na<sup>†</sup>. These gives humus a leading role to play in base exchange.

#### Disappearance and Replanishment.

The disappearance of humus is particularly noticed if the micro-organisms are exceedingly active. Conditions that favour their activity are suitable aeration and dryness, provided mainly by ploughing and drainage of land. Temperature conditions play a very important part in humus decomposition. Decomposition proceeds even at low temperature and any increase in temperature will correspondingly increase the rate of decomposition. The presence of sunlight has been found to accelerate the disintergration of humus. In the tropics humus decomposition goes on rapidly and the latter two reasons are the chief causes.

It is therefore obvious that constant cultivation without replanishment of the soil organic matter will render the soil infertile. Replanishment of soil humus can be accomplished by the addition of compost, farmyard manure, crop residue, semi-rotted plant material or animal tissues. The practice of fallowing the land, crop rotation and green manuring will tend to maintain the humus status of the soil.

These are but a few aspects on the vast study of that simple word HUMUS.

# SOME EFFECTS OF FLOOD ON SOIL AND MAN'S ENGINEERING SKILL ON LAND RECLAMATION WORK.

(By Ibrahim H. Hilaluddin)

"One of the biggest problems caused by the floods on England's East coast was the loss of fertility of thousand of acres of rich farm land." This is a small part of an elaborate account given in one of our daily newspapers concerning the recent big flood in England.

Floodwater does not only destroy crops and livestock but it also takes its toll of nature's "ploughmen"—the millions of earthworms whose ceaseless tunnelling activities keep the soil sweet and clean. The tunnelling activities of the earthworms, permit penetration of air into soil, improve drainage and make easier the downward growth of roots. The leaves pulled into the ground by earthworms are only partially digested and their remains are thoroughly mixed with the castings, adding organic matter. The excretory waste and other secretions of the worms also add organic material, enriching the soil for future plant growth. In this way earthworms have helped to produce the fertile humus that covers the land. Darwin estimated that "the quantity of earth brought up from below and deposited on the surface has been as high as 18 tons per acre per year, and, if spread out uniformly, about 2 inches in 10 years." Darwin further said that by this deposit of earth "seeds are covered and so enable to germinate, and stones and other objects on the surface become buried. In this way ancient buildings have been covered and so preserved, much to the advantage of archaelogists." So, in this case, earthworms do not only benefit farmers but archaeologists as well. Thus it is no wonder that the death so called nature's "ploughmen" has been considered to be one of the serious problems caused by flood. The death of these "ploughmen" leads to the infertility and poorness in texture of soil. This is one of the effects of flood on soil.

Another, and even more serious effect is the deposit of salt left by receding sea-water, in the case of sea-flooding. As we know when land is flooded with seawater, the base exchange capacity becomes largely satisfied with sodium which makes the soil very sticky and usually, therefore ruin the texture of the soil. Due to the instant process of the base exchange, a brief incursion of sea-water may do incalculable damage. This is indeed very true in the case of flood of the Humber in 1921, which overflowed its bank into Lanchashire. Some of the fields in this area were flooded for a couple of days only, but it was three or four years before the fields could be brought back into cultivation. Sodium does not only render the soil sticky, but it also frequently sets the soil to solid cement platform-like mass when the latter dries up.

The flood which brings the serious problem mentioned above has led man to find ways and means to remove the salt from the sodium-soaked soil as easily and as quickly as possible. In recent time, however, improved engineering skill, wedded to greater scientific knowledge, has enabled mere miracles to be performed in this as in other fields.

An example of this is to be found in the story of Persia's Abadan island in the war years. For it then became an urgent problem to build up local supplies of foodstuffs in order to feed the many thousands of refinery employees and their families who lived on the island. To this end the oil company operating there decided to bring under cultivation hundreds of acres which at that time were completely infertile because of their salt content. So with the war at its height, a major agricultural project was undertaken. An integral part of this was the washing out of the salt by means of "leaching" i.e. flushing the soil with water. In some places this leaching process was carried everyday for over two years and in this day one hundred tons of salt was removed from a single acre. Then fertilizers were applied, lime added in the ground ploughed and sown. For many years now vegetable of every variety as well as cattle food have been grown in abundance on these former salt lands.

Today, in Iraq, a similar but far more ambitious project has been started for reclaiming many thousand of acres of landsbetween the Tigris and Euphrates rivers. This ambitious project includes the provision of irrigation over a wide area and the reclamation of large districts which at present are salt marshes.

Another case which deserves special mention is the land reclamation which has gone on for many centuries on the north coast of Holland. The reclamation land which is called "kwelder" was similarly treated and made arable to thousands of Hollanders. The Netherlands is well known for its Land Reclamation project. In fact most of the crops are grown on the reclaimed land.

Thus in spite of the fact that flood is forever a very serious problem to man, yet he, with his engineering skill and scientific knowledge, is still able to cultivate his land and grow his food.

Imagination does more than accelerate material progress; it creates more satisfying human relationship.

Ray Giles.

\* \* \* \* \*

A fool may be known by six things: anger without cause, speech without object; putting trust in a stranger; and mistaking foes for friends.

Arabian Proverb.

\* \* \* \* \*

Observe the prudent; they in silence sit, Display no learning and affect no wit; they hazard nothing, nothing they assume, But know the useful art of acting dumb.

G. Crabbe.

#### CLAMYDOMONAS WEDDING.

By A. H. Z.

One of the grandest weddings in the world was the marriage of the Earl Clamy-domonas to Miss Clamydomonas who was once the lady-in waiting of Queen Protococcus of Gonna Loco. It was held on the eleventh day of the month in the year of our grace 2070 at Eastminster Abbey, Lake Titicaca.

It would be of interest to relate the life of the bridegroom before describing the wedding ceremony. The Earl was the hybrid of Admiral and Mrs. Clamydomonas who inherited the C factor through the chromatids to the Earl. He had a great courage and heart of a stone. This was proved during the World War V in which Bacilli and Spirilli were the conquerors. Commanding a handful of desperate and dispirited soldiers he managed to rout ten divisions of the Bacterial army, thus obtaining his title.

Presents poured in large quantities, atmospheric air and water sent in enormous volumes of CO<sub>2</sub> and mineral salt solutions respectively. The road leading from the bride's mansion to the abbey was lit at night with florescent lamps donated by fire-flies. Guests began to arrive, notables among them were Queen Protococcus, Lord and Lady Vaucheria, Prime Minister Sir Mucor and Dato E. Pythium. It was a long procession led by The Royal Volvox Band followed by the Queen. On either side of the road was thronged by species of population, ranging from Nostoc to Lichens who cheered ceaselessly "God Save The Earl and Lady Clamydomonas." The bride and bridegroom took the position number 3 in the procession and were in a golden stage coach drawn by the finest pair of Euglena Viridis. As the couple alighted from the coach, Archbishop of Cadbury, Reverend Father Spirogyra led them to the altar. The bride wore the best wedding gown plaited by cellulose, while the groom donned a pair of golden flagellate moustache. The wedding was solemnised by the Reverend Father and so ended the grand wedding of The Earl Clamydomonas.

Extract from: "PLANTS WITHOUT BACKBONE"

There is no frigate like a book To take us lands away, Nor any coursers like a page of prancing poetry.

Emily Dickinson.

If you get simple beauty and naught else, You get about the best thing God invents.

Robert Browing.

#### MY FIRST DAY IN COLLEGE.

(By C. H. Yeoh)

Long before 1 set foot in the College of Agriculture, I had been informed by many a friend, of the ragging which was and still is the much talked of topic for the unhappy lot of freshmen. These kind of informants were none other than those, who had been through the mill themselves, and had finally emerged from that hard "school of mankind," "sadder and wiser" men.

With all those tales I had heard, was it any wonder then, that I viewed the the approaching day of admission to the College, with a certain amount of trepidation in my heart? Let me cast my thoughts back to that memorable day, June 16th 1953, when, with an aching heart, I left my home, family, and friends, to "seek my fortunes abroad."

I felt like the raw recruit I was then. My relief, therefore, knew no bounds when fate brought into my railway compartment, a young chap, who was heading for the same destination as I was. In other words, he was just another "freshie." I felt that my lucky star was in the ascendant not because I would be exempted from the ragging ahead, but because there would at least be a friend in that new uncertain world we would soon find ourselves in.

It was cold and cheerless when we arrived at our destination, but we soon felt a little more at home after the warm welcome shown by Mr. Yap Chin Kee our Registrar and Bursar. He had completed all necessary arrangements for us and what we had to do was to take possession of our new territory.

Both my new-found friend and I had been allotted places in the "Faulkner Dormitory," much to our delight. After paying heed to further instructions, we set off in search of our "quarters."

I struggled along a long corridor leading to a staircase, carrying a heavy bag in either hand. As I proceeded on my way, strange, unfamiliar faces stared curiously at me from side pillars and remote corners. The fear of being ragged there and then prompted me to cast my eyes on the ground. I felt convinced that they were none other than the "seniors," who were waiting to "welcome" us. My heart palpitated so, and I felt sure all of them could hear its loud pounding.

Contrary to my expectations, however, nothing happened, but that was only lengthening the suspense. I felt that I would not be able to sleep soundly that night with the "sword of Damocles" hanging over my head

After having roughly arranged our belongings, "my friend and co-mate in exile" walked stealthily down the stairs to the dining-room, where after a hurried meal, we went out in quest of a quiet and obscure corner away from those curious, probing glances.

My searching eyes fell upon a dark corner under a staircae leading to the Science laboratory. We tucked ourselves in there miserably, and discussed nothing but the best possible ways of escaping our fate. We were even prepared to spend the night under the staircase should the situation prove intolerable. Strangely no signs of ragging could be heard, a deep silence prevailed throughout the length and breath of the College. That was an unnatural and an uncomfortable silence like "the calm before a storm."

"We listened, and looked sideways up, Fear at my heart, as at a cup; My life-blood seemed to sip....."

My worst fears were founded; the "enemy" had come upon us, not what was expected but in totally new form with "wings and stings," a swarm of hungry mosquitoes spied our presence and come to appease their hunger of the past two solid months. The situation became intolerable, but a student of Agriculture never gives up without a struggle. In the "battle" that ensued many winged "terrors" found their way "six feet underground." The victors were naturally jubilant, although we bore the traces of struggle. We had the best of every fray that followed but none could have too much of a good thing.

"The shades of night were falling fast" so we voted for bed. We crept out from our hiding places and kept a sharp look-out for the "seniors." "All was quiet on the western front." I spied a few chaps creeping about stealthily and I drew the conclusion that they were just freshmen too, undergoing similar pangs of fright. My heart went out to them. It was with a weary mind and an exhausted frame that I betook myself to bed. Before long I was sleeping the "sleep of the just," much too tired to care about anything that might have been going on around me.

"O Sleep! it is a gentle thing, Beloved from pole to pole; To many Queen, the praise be given! She sent the gentle sleep from Heaven That slid into my weary soul!"

S. T. Coleridge.

The old order changeth, yielding place to new, And God fulfills Himself in many ways, Lest one good custom should corrupt the world.

Tennyson.

# RUBBER PRODUCTION ON SMALLHOLDINGS IN MALAYA — PROBLEMS AND REMEDIES.

(By "Lun")

About forty percent of the total amount of rubber produced in Malaya comes from smallholdings. Of this a great proportion comes under the lower grades. Although this is obviously an undesirable situation, very few smallholders have made any attempts to improve the quality of their rubber.

The reasons for the low quality of rubber produced on smallholdings are many and varied. There is, first of all, the time factor to be considered. On smallholdings the manufacture of rubber usually forms the last part of a day's hard work in the field. By the time the latex is brought into the factory the tapper will have been a very tired person. There is therefore a tendency to do everything in a hurry. Besides, the tapper might want to rush home to attend to other duties. This is often the case if the tapper is a woman.

The outcome of all this is that the question of quality is often overlooked. Manufacturing equipment such as coagulating pans, buckets, sieves and mangles may not be properly washed before use. Then again, the latex may not be properly sieved. Acid, too, may not be diluted and added in proper proportions. It is not uncommon for the tapper to add more acid or increase the concentration of the acid in order to quicken coagulation. The ultimate result of all this is a poor quality product.

On many smallholdings water used in the manufacture of sheet rubber is often dirty. This also affects the quality of the final product as particles of dirt in the water may be incorporated in the sheets.

A good many smallholders use sulphuric acid for coagulation. This in itself is bad enough, but when added in excessive quantities is even more harmful.

The method of flattening the coagulum adopted by most smallholders is also undesirable. It is the usual custom for smallholders to stamp the coagulum on the ground before passing it through the mangle. This may be a convenient method but it increases the possibility of dirt adhering to the sheets, thus lowering the grade of the rubber.

These are some of the problems of rubber production on smallholdings. However, they can be solved if certain simple rules are observed. To begin with, the question of cleanliness is of paramount importance. To produce good quality rubber it is essential to have a source of clean water supply. All factory equipment such as sieves, coagulating pans and mangles should be washed with clean water before and after use. The acid used for coagulating the latex should be either formic or acetic and should be diluted and added in the correct proportions. The coagulum can be flattened with a wooden roller on a home-made table which should be washed before use.

As most of the smallholders are with little education, it may be argued that it is a bit too much to ask of them to observe strictly these simple rules which are so essential for the production of good quality rubber. It may also be said that the time factor does not favour such an elaborate (that is, if you may call it elaborate) process of manufacture, as the tapper who is usually the owner himself has to rush home to attend to other duties.

In the light of such difficulties the question of centralised manufacture may be seriously considered. This may be carried out either by the smallholders themselves on a co-operative basis or by some private individual who buys and processes the latex from smallholders.

In the first instance, the sheet rubber can be produced in a central factory owned jointly by a group of neighbouring smallholders. The site of the factory should, of course, be chosen to suit the convenience of each and every owner so that no tapper will have to carry his latex over long distances from the field to the factory. A few full-time factory hands may be employed for the purpose of manufacturing and smoking the rubber.

The latex brought in from the various holdings is to be processed in bulk. However, there is no difficulty in maintaining a day to day record of the amount of dry rubber produced on any particular holding as the latter can be easily determined with the aid of such instruments as the Simplexometer or the Metrolac as the latex is brought in from each individual holding. There is therefore no question of one owner receiving more, or less, than his rightful share of the dividends when the produce is marketed.

In the second instance, the smallholder may sell his rubber in the form of latex to a central factory operated by some private individual who employs a few hands for the sole purpose of manufacturing sheet rubber. This method of centralised manufacture has an obvious advantage over the former in that there is no necessity for the smallholder to buy manufacturing equipment, as well as replenish minor items such as coagulating acids and pans from time to time.

The merits of a centralised system of manufacture can be gauged from the fact that it gives the smallholder, who is normally the tapper himself, more free time since he does not have to do the manufacturing part of the day's work himself. Thus he can devote more time to maintaining his holding in good condition. This in turn may increase the economic value of his trees. But, perhaps even more important, is the fact that under a centralised system of manufacture the quality of the product is apt to be greatly improved, since in this case the factory employees are full-time workers doing a specialised job. The ultimate result is, of course, that the smallholder gets a better price for his rubber.

With all these advantages in view it should not be difficult to see why centralisation of manufacture on smallholdings is preferred. Yet the stark fact remains that the idea has not caught on with most of the smallholders who continue to manufacture their rubber on their individual holdings, without much care or thought of improving the quality of their produce. Ignorance could be a good reason for this apathy.

For the past few decades rubber has been one of the chief dollar-earners of Malaya. The rubber industry has enjoyed a comparatively easy period. Today the position of natural rubber is no longer secure. The threat from synthetic rubber is so menacing that we can no longer sit back and rest on our laurels. The period of plain sailing is over and if at all Malaya is to find any markets for her rubber, a product so vital to her national economy, some means of offsetting the challenge imposed by synthetic must be found. Apart from trying to reduce the cost of production and other measures that can be taken, a sure way of offsetting this serious challenge is to improve the quality of Malayan rubber. This applies particularly to smallholdings where some of the rubber produced is of a very poor quality indeed.

No amount of re-planting will do so long as things remain as they are on small-

holdings. The problem is more urgent than it seems.

# THE PRESENT POSITION OF ANIMAL HUSBANDRY IN MALAYA.

(By Pa-Jenee)

In the past agriculture in Malaya has mainly been concerned with tree and bush crops. On account of this another important branch of agriculture—livestock husbandry—has been overlooked. This particular branch of the industry has not received the full attention of the people. Considering its importance and value in a good system of farming, it is to be much regretted that Malaya is backward in this respect. The people are not aware that Malaya is spending a large sum of money on importation of livestock and livestock by-products for the consumption of its people.

We cannot blame the people for not taking up this branch of agriculture on a large scale. Several factors account for this. In the first place it had been found out that tree crops planted on newly-opened jungle land grew very well without manuring. This system of agriculture was greatly encouraged by the high price that the products would fetch. Naturally the farmer would tend to stick to this form of agriculture.

Secondly, there is the question of land for grazing. Much of the land has been planted with tree crops. As a result there is not sufficient grazing ground available. Rice cultivation occupies a prominant place in Malayan agriculture among the Malays. The planting of tree crops and rice dominates over other forms of agriculture as the former require very little manure for their establishment, and comparatively little labour for cultivation.

Finally there is the attitude of the people to be considered. They have not a strong inclination towards this branch of agriculture.

Let us now survey the present position of livestock husbandry in Malaya. What types of animals are to be found? We have buffalos, cattle, goats and pigs. The buffalos are of two types—the water buffalo and the Indian curly-horned, buffalo. The former are largely kept by the Malays and are used for the cultivation of rice fields, for meat production and for haulage. The Indian curly-horned buffalo, reared by the Indians, are kept for haulage as well as milk and meat production. The cattle are mainly kept by the Indians to provide milk, meat and for transport purposes. The pigs are exclusively kept by the Chinese. So it is obvious that we have in this country all the domestic animals which are to be found in other tropical countries.

Now the question is: Are we satisfied with the present position? Do we have enough domestic animals to provide us with milk and meat? The answer is that livestock husbandry in this country is still in its infant stage. Certainly there is plenty of room for improvement. Malaya could do well with improving her agriculture, especially in respect to livestock husbandry so that she will not be dependant on other countries for her meat and dairy products. In the first place it will minimise the present imports of livestock and their by-products. Secondly, it will permit the expansion of local agriculture in which livestock with their by-products such as manure play an important part. Mixed farming is always to be encouraged for it is the basis of a good system of agriculture.

What are the real problems we have to face in regard to livestock husbandry in this country? The outstanding problems are those connected with nutrition, breeding, housing and disease. As it has been mentioned earlier, the chief difficulty in connexion with nutrition is that there are not sufficient grazing grounds available. The cattle and buffalos are to a large extent neglected in this respect. They are allowed to graze on poor and coarse grass. The farmers take little trouble to supplement their nutrition either with cut-grass or concentrates. In the case of water buffaloes, they are usually allowed to graze on the padi fields when the land is not under cultivation. But after the padi is planted, the animals are, as a rule, prevented from entering the sawah areas and thus deprived of their natural pasturage and wallows. They are allowed to ramble over the countryside uncared for during this period of the planting season.

With regard to breeding there is no control system at all. The animals are allowed to mate promiscously without taking into consideration their age and either their good or bad hereditary factors.

It is fortunate that this important industry is receiving much attention from the government. The Department of Agriculture has been carrying out investigations for several years, on all aspects of livestock husbandry, both on hillstations and the lowland. Great strides have been made with regard to feeding, breeding and general improvement of the livestock husbandry in Malaya. Pedigreed animals are being imported with a view of up-grading the local animals.

Thus we have seen some of the problems of livestock husbandry in Malaya. Let us hope that in future animal husbandry will receive increased attention in this country and the problems relating to it will be tackled with increased vigour.

Justice is a machine that, when someone has given it a starting push, rolls on of itself.

John Galsworthy.

Some praise at morning what they blame at night, but always think the last opinion right.

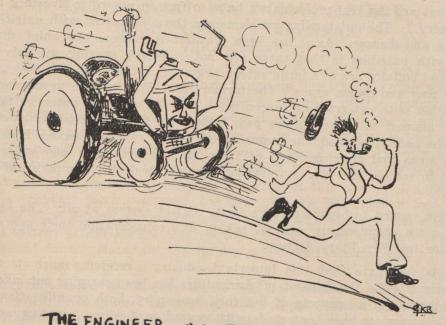
Pope.

Reading maketh a full man; Conference a ready man; And writing an exact man.

Francis Bacon.

Rumour is a pipe blown by surmises, jealousies, conjectures.

Shakespeare.



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#### HOSTEL ROUTINE.

(By "Lun"

"Clang-a-lang!" "Clang-a-lang!" There goes the bell again! It's time to be up for field-work. But most of the students are still on their bunks. "Scott," the early bird, however, is already up. You can hear him shaving his bushy face (he does it with so much noise) as his radio blasts away for all it is worth.

A few minutes later everyone is busy preparing for field-work, that is, everyone except the "Three-tonner" from U.K. (Ulu Kedah please, not United Kingdom) and the "Marathon Sleeper" who are both keen rivals for the title "Champion Sleeper of the Year." These two are still comfortably under their blankets.

"Tonthi" (also known as "water barrel" on account of his barrel-like paunch) can be heard shuffling into the dormitory after his wash. He shuffles so well with his clogs that it is hard to tell whether there is any Japanese woman who could have done better. As he passes the "Marathon Sleeper" he tries to wake him, but without success. "T.J.I", a neighbour of the "Marathon Sleeper" tries to wake him too. After a long series of "oi"'s and "get up"'s the latter finally gets up, grumbling as though nothing has ever gone right for him all his life. He dashes into the bathroom for a quick wash. As he returns to the dormitory he hears the bell ringing. Changing into his field-work clothes he swears at the bell for disturbing the peace.

In the store a group of students are trying unsuccessfully to bring "Major Ferguson" to life. Finally "M.T." takes over. With a good turn of the crank he gets the "Major" coughing into action. A terrific "y-ee-ee-o-ho" (Serdang call) sails across the atmosphere.

Meanwhile, "Lord Lotiliho," the "engineer," who can never talk without referring to machines, has managed to get his pet machine the rotary hoe started. The crowd in the store greet his achievement with a tremendous applause. He responds to his audience with a smile characteristic of one who is used to receiving such ovation, as he ceaselessly blows enormous clouds of smoke which he has inhaled from the "funnel" between his lips. (On such an occasion the "Lord" never fails to light up his "funnel" and hold it between his teeth, though as to the latter, I wonder how he does it since his mouth is quite empty of teeth). The smoke is so dense that after a hurried discussion his audience wisely conclude that "Lord Lotiliho" alone can produce more smoke than all the firewood in the College rubber smokehouse.

At breakfast time pandemonium reigns in the dining room. There could not have been a better example of havoc and anarchy.

At one end of the room "Soap-box Orator" is expounding his theories to "Carnivorous Tan," one of his prospective disciples. "Women!" exclaims the "orator" with contempt. "They are the root of all men's evils." Being guilty of having a wide circle of female friends, "Carnivorous Tan" promptly champions the fair sex. "Fiddlesticks!" explodes the defender of women. "Women are necessary."

"Out of order!" rules "Billy the Kid" who seems to have assumed the role of chairman of the debate. "He didn't say they're not necessary. What he said in effect was women are necessarily evil," concludes "Billy."

When voting is declared the house returns a vote of one in favour of the "Orator" and one in favour of "Carnivorous," both the speakers voting, of course, for themselves. Billy "declares, "As chairman of the debate I have the casting vote. I now cast my vote in favour of the Orator". Then softly to the "Orator": "Great men always think alike, ch?"

Meanwhile, "Anak Pak Lope", whose store of wisecracks knows no limit, is warming up to one of his unpredictable jokes. He seems to have collected an audience round his table. "There will be an ashbishn match to-day," he declares. "What matches?" one of his audience wants to know. "Matrimonial match," replies "Anak Pak Lope" with a feeling of satisfaction as the crowd laugh their heads off.

Back in the dormitories the students get ready for their lectures. The bath-room turns into a rendezvous for local "Crosbys", "Laines" and even "Lynns" and "Staffords." A babel of tunes sails across the room and the result is something in a class by itself—something which no Crosbys or Lynns can ever hope to achieve. In the midst of this classic example of singing a tremendous "wow" emits from one of the water closest. Someone has just been given a bath in it!

After tiffin the scene of confusion changes to the common room where at one end the "carrom maniaces" compliment one another with insults as they bang away at a game of carrom. At the other end of the room the newspaper "racketeers" get to work as students scramble for the day's papers. These "racketeers" have a mutual understanding. They exchange papers after reading so that those who do not have a paper in hand are kept waiting until everyone of their syndicate has finished with the whole paper.

At siesta time the peace is suddenly broken by a line from one of the local "Frankie Laines." A spontaneous series of "shut up" 's and "pipe down" 's rocks the entire building.

After tea the "badminton maniacs", comprising "Timber Merchant" (so dubbed because he commits more wood shots in one game than all the Thomas Cup players together in one lifetime) and his clique, chase the shuttle all over the court in the midst of laughter, jokes and well-worded insults which rightly or wrongly are said with the good intention of being compliments.

In the tennis court "Mobile Tombstone" is demonstrating a marvellous game of ballet-cum-tennis for which a crowd of spectators readily compliment him with jeers. Suddenly, like a bolt from the blue, "Major Hodson" appears on his rearing "iron horse" of which he can never help being proud. He is at one of his "Reggie Trevor" feats. All eyes are on him now. As he proudly demonstrates a few of his many tricks on his thundering tin-can a barrage of well-meant insults and abuses greet him.

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At eleven o'clock sharp "Tonthi" goes round the dormitory barking (or rather quacking since he quacks more than barks): "Lights out!" "Lights out!" His compatriot from U.K., one of those nocturnal creatures who sleeps by day and works by night, answers his barks with a sharp "pipe down!" A battle of words follows between the two. "Tonthi," apparently lacking in ammunition, declares a truce for the night.

Now darkness hangs over the dormitory. At last one can have some peace. Peace, did I say? No. not yet. For out of the serenity of the night comes a shocking "boom-bang" that rocks the whole building and brings everyone to life. That was "Gajah" trying to settle down to some sleep. Poor man! Went crashing to the ground on his bunk! Don't ask me how it happened.



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#### BALI CATTLE (Bos banting).

(Hamid Yusof)

Before World War II large numbers of Bali cattle were imported into Malaya regularly from Indonesia and slaughtered on arrival for beef.

In 1941 several thousands of these animals were imported as emergency war reserve of beef-on-foot and they were distributed throughout the country, mostly to suitable coconut and rubber estates where they thrived on rough grazing. The majority of these animals were later slaughtered during the Japanese occupation leaving but a few for draught purposes in Perak and Johore.

TYPE. The type imported into this country is the domesticated B. banting which is apparently well adapted for beef production.

Towards the end of 1950 the Department of Agriculture in collaboration with the Veterinary Department made an attempt to obtain breeding stock of these promising animals and as a start, two young bills and eight heifers were imported from Bali. This small herd is now at the Federal Experimental Station, Serdang where they are multiplied for use in experiments to find out whether they can adapt themselves to local conditions and suit the needs of the small-holders of this country.

APPEARANCE. It is said that the Bali cattle closely resembles a small Seladang (Bos gaurus). Young Bali calves have a great similarity in appearance to that of a deer (Cervus unicolor) and very often a person who sees a Bali calf for the first time easily mistakes it for a deer. When compared to the other types of domestic cattle, those of Bali breed seem to have a peculiar swaying gait and while walking carry their heads down. In colour the majority of the young animals are brownish-buff, but the bulls and some of the older cows are dark-brown. Their mild expression justifies the easiness to handle and so can be trained for haulage purposes. Yet how far these animals can fit into Malayan agriculture remains to be seen though there is already some evidence to suggest that they can thrive better in kampong condition than do the milch cattle.

OBSERVATIONS. From observations made they appear to require some browsing and grazing and they dislike the full heat of the sun at mid-day.

In Bali where large numbers are reared, they are said to be fond of browsing on Petai Jawa (Leucana glauca). In Serdang they have been found to like bunches of Jack fruit (Artocarpus integrifolia) and Tembesu (Fagroea fragrans) leaves such as are given to goats. Another important characteristic is that they can be left out at night and housing is therefore found to be not very essential.

#### THE SERDANG SUN

BREEDING. Investigation on the following aspects is still being carried out and has not yet been completed at the time of writing:-

- (a) Gestation period
- (b) Frequency of oestrus
- (c) The duration of actual heat
- (e) Observations and records required in respect of teeth development with age on locally born calves
- (f) Rate of live-weight increase
- (g) Age at which sexual maturity is reached in males and females.

Of these (e) had been done and the following were observed:-

DENTITION. The age of cattle is estimated by means of the teeth. Dentition is typical of all ruminants. At or within a month after birth the calf has six or eight incisors and two canines on the lower jaw—(the canines are shaped exactly like the incisors and situated close to them and are generally regarded as incisors), twelve pre-molars, three on each side above and below. The upper jaw has neither incisors nor canines, but is provided with a cartilaginous pad or dental pad. All these are temporary or milk teeth and they are replaced later by permanent ones. Three molars are on each side of the jaw and they grow behind the pre-molars, which together with the molars complete the dentition. Until eight permanent incisors are completed by which time the total number of permanent teeth is thirty-two and the animal is then said to be full-mouthed, the age cannot be told with correctness.

#### A — DENTAL FORMULAE FOR MILK TEETH.

Upper jaw	Molars
0 0	3 3)
	) = Total 20
Lower jaw	) teeth.
Incisors 4 4	3 3)

#### B— DENTAL FORMULAE FOR PERMANENT TEETH.

Upper jaw	Pre-molars	Molars			
0 0	3 3	3 3)			
		) teeth.			
Lower jaw		) = Total 32			
Incisors 4 4	3 3	3 3)			

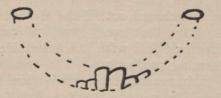
N.B:- A — Figures showing teeth on each side of upper jaw.

B — " " " " " lower jaw.

C -

#### DENTITION AT BIRTH

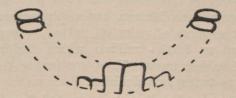
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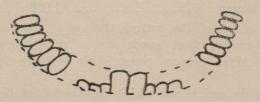
#### 14 DAYS OLD.

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E -

#### 30 DAYS OLD.



Lastly, the general handling of animals is of utmost importance.

#### OIL PALM.

(By Joosan)

One of Mankind's chief problems to-day is to find ways and means of wiping out the scourge of malnutrition that besets a greater proportion of its population. Since that day when Adam was chased out of the Garden of Eden, hunger has never left us. It is common knowledge that every year, millions of people either starve or go on living with their bellies half full, with the inevitable result that disease is rife and deaths occurring in alarming proportions. The members of the U.N.O. should devote more of their time in increasing food production than sitting around tables throwing mud at each other. In poverty-stricken Asia, where the food problem is very acute, unscrupulous political maniacs take advantage of the hungry man's discontentment and thus cause confusion among the masses. Thus we see that shortage of food is no mean reason in helping to breed to-day's political upheavels.

It is not surprising therefore that fats and oils of vegetable origin are playing an appreciative part in fighting off malnutrition. Demand is great and is increasing every day. One of the major contributors to these vegetable fats and oils is palm oil, which is an high ranking export crop from this country. According to the 1949 figures given by the Dept. of Agriculture, Malaya has a total acreage of approximately 90,000, and in that year the net exports of palm oil netted us nearly \$42/- million. Rubber in that same year netted us \$600/- million which incidentally was obtained from nearly 3,000,000 acres of rubber trees. Thus comparing the relative value of rubber and oil palm, the latter is twice as valuable.

The figures in oil palm distribution is quoted from the M.A.J. and reproduced below:—

Perak	22,000	acres
Selangor	17,000	"
Johore		,,
Negri Sembilan	3,000	,,
Pahang		,,
Province Wellesly	1,000	,,
Kelantan	1,000	,,

A historical record of the introduction of oil palm into this country dates back to the year 1875, when the first seeds were brought to the Botanical Gardens, Singapore from Peradeniya, Ceylon, presumably through the Royal Botanic Gardens at Kew.

These first seeds and those which followed from time to time were planted as ornamental palms. To quote from D. H. Grist, "It was not until about 40 years later, by which time the world's consumption of vegetable oils and fats had increased to such an extent as to demand additional sources of supply that attempts were made to cultivate the oil palm on a plantation scale."

The first attempt to plant the crop on a plantation scale was carried out in 1917 in the District of Kuala Selangor by Monsieur H. Fauconnier, and the plantation known to-day as Tennanaram Estate is the result of that pioneering effort. But it was not until 1926 that the oil palm industry started to expand.

The home of the oil palm whose botanical name is Elaeis guineensis, is in tropical Africa., found in greatest abundance from Sierra Leone to the Cameroons, where it occurs in dense forest. The full grown palm stands as high as 60 feet, with its trunk covered with the bases of dead leaves, and bearing at the apex a crown of large pinnate leaves. The fruits are borne in bunches. Though many bunches are produced, the number of flowers per inflorescense is low when the palms first begin to bear. As the palm matures the number of bunches decreases with a corresponding increase in the number of flowers per inflorescense. The  $1\frac{1}{2}$  inches long and 1 inch wide egg-shaped fruit is a drupe, which turns reddish brown or orange when ripe. The outer portion of the fruit or pericarp varies in thickness and it is from this soft pericarp that the palm oil is extracted. Inside the pericarp is the hard nut and inside its shell the white kernel which has three potential embryos though usually one plant is produced when it germinates.

The oil palm has 19 varieties and for simple classification is classified according to the thickness of the pericarp. The list below shows a few of these varieties:-

- 1. Dura, commonly known as the "Deli" type. The pericarp is 2 to 6 m.m. thick, and the shell is 2 to 5 m.m. thick (almost 30% by weight of the fruit.)
- 2. Tenera type with a thin shell (1 to 2.5 m.m. thick) and a thick pericarp comprising almost 70% of the fruit.
- 3. Pisifera, with a very thick pericarp (almost 95% if the fruit is pericarp) and small kernel. The fruit is small.
  - 4. Virescens.
  - 5. Albescens.
  - 6. Idolatrica.

Malaya's oil palm is mostly of the Dura type and by selection it gives a 60% pericarp. The average composition of ripe fruit is as follows:-

Constituent			%
			29
Palm oil		 	
Palm kernel		 	6
Shell		 	30
Moisture and r	esidue		35
To	otal	 	100

A brief account into the agronomic and production problems of a typical oil palm estate in this country will I am sure give the reader a more comprehensive insight into the oil palm industry. For the sake of convenience it will be written under the following headings:—

#### Germination of Seeds.

The seed beds must never be constructed under shade, as the absence of full sunlight impedes germination of the seeds. This is very important and should always be remembered. The media for germination must facilitate the draining off of the excess water. Therefore sand is usually used for this purpose, each bed is raised to a height of 6 to 9 inches, with a reasonable length (say 50 to 60 feet), and about 4 to 6 feet wide. The selection of seeds is of paramount importance. The seeds must be fully ripe and got from trees with records of high yields. Before the seeds are planted half an inch below the surface and about 1 inch apart, the fruits are depericarped (to remove the pericarp) by soaking them in water for a few days. After planting is done, watering is carried out two or three times a day, according to weather conditions. Germination will begin to manifest itself in about 6 months' time and the usual percentage of success is around 50.

#### The Nursery.

From their germination beds, the tiny seedlings of a two-leaf stage with the nut still attached, are transferred to well prepared nursery beds, which are usually raised to facilitate later uprooting, thus cutting down labour costs. This nursery is normally to be found as near the planting field as is possible so as to reduce the cost of transporting the young palms from the nursery to the field. Since the seedlings are to remain in the nursery for anything between 18 to 24 months, they are spaced about 3 feet apart. Never give a planting distance of less than 2 feet as it has a detrimental effect on their growth.

Assuming that cultural operations are satisfactory, (the liberal supplies of complete fertilizers is most imperative at this stage of the growth of the palm) the seedlings would have attained a height of 6 to 8 feet after 18 months, and are considered suitable for transplanting to the field.

#### Planting in Field.

Planting holes of two feet cube are dug 3 weeks before transplanting begins, and are filled with top soil one week before transplanting. As soon as the field is ready, the 18 month-old palms are uprooted with most of their roots intact, and each wrapped with its roots in a gunny sack. They are then conveyed by means of lorries or other suitable means of transport to the field. At each hole, the gunny sack is removed and the young palm with quite a chunk of earth around its roots is planted firmly, with the "collar" flush with the top of the slight mould of soil around it. This is done to counteract later soil subsidy. The leaves of each palm is usually tied together to reduce excessive transpiration. The whole operation of transplanting should be carried out during or at the beginning of the rainy season. The planting distance usually adopted is 30 feet square or 30 feet triangular, which gives 48 and 55 trees to the acre respectively.

After the plants are established, periodical ring weeding is done, and a 4 ozsof a complete fertilizer is given to each plant. The fertilizer is broadcast about 2 feet away from the base of the palm and is slightly forked into the soil.

Mention must be made of the fact that these 18 month-old palms possess hard and thorny enough leaf bases to discourage attacks by both rats and rhinoceros beetles. The latter are the chief reasons for keeping them in the nursery for such a long spell.

#### Harvesting technique in the first 5 years.

After three years in the field, some of the palms begin to flower and bear fruits. If it is economical (depending on the price of palm oil and the number of fruit bunches produced) these fruits are harvested by means of a chisel, and no lower leaves are pruned. It is the practice that when the lowest bunch of fruits appear more than three feet above ground level, that particular palm is "ripe" to be brought into maturity. This will take place about the 5th year. When the palm is to be brought into maturity, the lower leaves are pruned and normal harvesting by means of axes or bamboo poles with curving knives attached, is adopted.

### Harvesting technique for mature palms of over 5 years.

The use of curved knives (not unlike the shape of a sickle) mounted on the ends of long bamboo poles for harvesting is at present practised in most estates. This method is much faster and involves less labour than the old method (still being practised) of climbing the palm and removing the fruit bunches by means of an axe.

The bamboo pole with the very sharp curved knife is placed at the base of the frond to be removed. By pulling a few times, the base of the frond is cut. Similarly, the fruit bunches are removed. Unfortunately, this method is not generally favoured by Indian labourers who comprise the greater portion of the labour force in oil palm estates. Thus in certain estates Chinese labourers are resorted to. Harvesting is normally on a contract basis, and calculated on the number of bunches brought in, say 150 to a maximum of 200 bunches per man/day. Harvesting is carried out once in 7 to 10 days.

#### Diseased and "Yellowing."

The mature oil palm in most estates is, fortunately, not subject to serious pests and diseases. Rat attacks on fruit bunches is reduced to the minimum by dusting the fruits with barium carbonate. "Yellowing," a "disease" describing the yellow colour of the leaves, though not serious, has caused marked decreases in yield. In one estate, "yellowing" has been successfully corrected by an application of magnesium lime at a rate of 10 cwts. per acre. And this almost doubled the yields of the "yellowing" areas. The magnesium lime is broadcast between the rows. The average yield for Malayan estates is between 0.7 to 0.8 tons of oil per acre.

#### Pruning.

Periodical pruning at intervals of 6 to 9 months is generally practised. Certain estates have employed the method whereby harvesting and pruning are done at the same time. But more often than not, pruning is given out on a contract basis, in which case the trees to be pruned are marked out by the man in charge of that affected field.

Pruning also involves the use of long bamboo poles with curved knives attached. The knives must be very sharp to ensure a clean, straight cut. No jagged surface is tolerated by the estate manager, as this attracts the dreaded red-striped weevil (Rhynchophorus schach) to lay its eggs in the jagged surface, and the hatched grubs do considerable damage to the trees by boring long "tunnels," sometimes covering the entire length of the trunk.

#### Soils and Drainage.

The most suitable soil for oil palm is a loose alluvial loam, overlying a friable clay subsoil. Peat soils of the coastal areas are generally very suitable too. But the peat should be about 2 to 3 feet deep and lying over a layer of clay. Deep peats are to be avoided, as they tend to make the palms lean over.

Drainage is of paramount importance. Sub-soil water should never be stagnant, but forever moving. Therefore drains about 5 feet deep (depending on the height of the water table) are dug every rows apart (210 feet approximately) to satisfy the requirements of adequate drainage. Soils with a high water table should generally be avoided.

#### Factory Procedure.

Most of the estates possess a factory to extract the palm oil. Extraction is by no means a simple and cheap operation. Quality of the oil will have to depend on several factors as can be shown in the simple figures given below:—

(To maintain good quality of oil, the free fatty acid content should never rise above 3%).

Immature fruit
Plenty of carbohydrate
and little oil.

Mature fruit.
Oil.

Overmatured fruit.
Oil plus fatty
acid.

#### Comparison of free fatty acid content between fresh and stored fruits.

	Immature fruit.	Mature fruit.	Overmatured fruit.
Fresh Fruit.	0.17%	0.15%	0.25%
Stored Fruit.	0.84%	1.02%	1.14%

The above clearly indicates that the fruits must be just ripe when harvested, and taken to be processed in the factory with the least possible delay, so that quality of the oil can be maintained.

Transportation of the fruits from the fields to the factory is mainly done by light rail conveyances, a network of railway lines run the entire length and breath of the estate. In most estates, the side rails are spaced at reasonable distances apart, so that the labourer will not have to carry the harvested bunches further than is necessary. The side rails lead into the main rails which in turn lead toward the factory.

On arrival at the factory, the fruits are first weighed to record the yields from each field. The figures are also used to estimate the efficiency of oil production. Normal figures for oil extraction is 16—18% on fruit bunch.

The weighed fruits are then sent into the steam steraliser. Steam at 30 lbs. pressure is let into the steraliser to render the naturally occurring enzymes in the fruits inactive. It also softens the fruits and helps to loosen them on the bunches, thereby facilitating their separation in the threshing-machine, and assisting in the subsequent extraction of the oil. After steralisation, the fruits are stripped from the bunch stalks by passing them through a threshing-machine, which works on the principle of a mechanical shaker. The bunch refuse is taken to the fields and turned into manure. Certain estates claim that they produce excellent results.

From the threshing-machine, the partially cooked and steralised fruits are taken to the digestor by a series of buckets working on an elevator. The digestor is always situated high above the ground, and consists of a tight cylinder fitted with cadial blades. Steam at 5 to 10 lbs. pressure is sent into it, where the fruits are digested for approximately half an hour.

The broken up fruits pass from the digestor down below to the centrifugal extractor. Certain estates use huge presses to extract the oil. The centrifugal extractor is a cylinder with a screen inside it. This screen only allows the oil to be flung out when the extractor in revolving. Each extraction lasts for about 15 minutes.

From the extractor, the oil is led by a pipe into a container which has a sieve above it, so that the oil is free from bits of the fibrous pericarp. The oil is then pumped along pipes into settling tanks. Some estates boil this oil and water. A day or two is allowed for the oil to separate from the water and sludge, which can easily be drained away. The remaining oil is finally subjected to a separator to remove any water that is still present. The pure oil is then put in drums ready to be exported.

The oil-free pericarp and nuts from the extractor are separated by a revolving rectangular screen, which has iron rods as its sides. The pericarp falls through the rods but the nuts are collected at the other end of the rectangular screen. The pericarp refuse is used as fuel for the boiler. The nuts are stored for a few days so that the kernel will separate from the shell when cracked. The kernels are bagged and exported where they are crushed to make kernel oil and the cake sold as concentrate for feeding livestock.

The brief outline of factory procedure shows us that steam is imperative in the various stages of oil manufacture. Therefore, a boiler is invariably present in any oil palm factory. Below is an extract from the July 1953 Malayan Agricultural Journal showing the total production of palm oil and kernels in this country.

#### FEDERATION OF MALAYA.

Production of Palm Oil and Kernels.
(In long tons as declared by Estates)

(			
Month.	Palm Oil.	Pa	lm Kernels
January	 3,182		839
February	 3,110		850
March	 3,327		865
April	 3,350		893
May	 3,076		793
June	 3,020		718
July	 3,988		959
August	 3,819		931
September	 4,044		983
October	 4,265		1,066
November	 4,797		1,176
December	 5,117		1,175
Total	45,095		11,248

To sum up then, it is clear that at present oil palm cannot be a smallholder's crop, because of heavy capital outlay. The cost of a factory alone runs into the the \$100,000 mark and above.

It is to be hoped that in the near future, factories (run by the Government or Co-operative lines or even by individuals and private companies) will be built, to buy fresh oil palm fruits from anyone who can produce them. Then and only then can the smallholder hope to partake in the oil palm industry of this country. It is a sound and profitable industry which any efficiently run estate will tell you.

Talent is developed in retirement; Character is formed in the rush of the world.

Goethe.

#### THE LONELY STAR

Alone, I lay beside the stream
That leapt and bound across the green.
The air was cold, the light fading,
As I felt one June evening.

I watch'd the bright round moon appear To shine on me, sweetly and dear, But when I look'd across the sky I found a star of Even by.

I blink'd and smil'd and gaz'd at it And then with bliss I said to it, "O! Lonely star, your glitt'ring light Is ne'er so pleasing to my sight."

So always so when nights are dark
I see above this brilliant spark,
And my deep thoughts are filled with joy
O! Happy am I, a happy boy.

"LONELY BOY"

The kiss of the Sun for pardon The songs of the bird for mirth,
One is nearer God's Heart in a garden.
Than anywhere else on earth.

Dorothy F. Gurney.

What a man needs in gardening is a cast-iron back with a hinge in it.

Charles Dudley Warner.

Some books are meant to be tasted, Others to be swallowed, and some few to be chewed and digested.

Bacon

#### BRONZING OF OIL PALMS.

(By Hariri b. Abu Taif)

During the first term of the present academic year 1953/54 the final year students were asked to carry out experiments on certain problems relating to agriculture. The experiments covered a duration of about two terms, at the end of which every student had to submit his reports. Accordingly four students: Che Arshad bin Ayoub, Che Yahil bin Mohammad, Che Abdul Samad bin Yaakob and Che Hariri bin Abu Taif undertook to investigate the effect of Bronzing of oil palm on the yield. The investigation was carried out with the help and guidance of Mr. E. A. Rosenquist, M.A., Dip. Agr. Sci. Cam., the Botanist attached to the Federal Experimental Station, Serdang.

"Bronzing" is a general term for leaf chlorosis. In oil palm two types of leaf chlorosis were observed.

TYPE 1: "Orange spotting"—sma'l translucent dots that appear all over the pinnae, turn yellow and then darken to orange. In severe cases they may fuse to form an orange frond. On microscopic examination the dots are found to be of definite shape which later

expand in definite directions found near the veins of the pinnae.

In most cases the dots are

TYPE II: "Yellowing"—general yellowing of the pinnae.

A fungus Pestalozzia spp. may invade the affected tissue of the pinnae and in serious cases the whole pinnae dries up and dies off. Pestalozzia is therefore secondary.

When more and more leaves dry off as a result of Pestalozzia invasion, there is a corresponding decrease of surface area by which the plant can synthesise its food. Thus less 'food material' is produced which leads eventually to a decrease in the number of fruits, hence yield.

Although such a conclusion can be accepted in theory it is essential that field experiments be carried out to ascertain the extent of its reliability. For this work we made use of Field IV of the Federal Experimental Station Serdang where there are six randomised blocks each containing six progeny rows of ten to twelve palms to each row. The progenies are E 268; E 207; E 216; E 152 and E 97.

Yellowing and orange spotting may occur singly but more often they occur together in different intensity. Thus scoring for 'health' is necessary to assess the degree of chlorosis in each palm (10 points for healthy palms; and one point for serious Yellowing or Orange spotting). Each observer assessed the health of the palm.

Then the scores of the six observers were added and the mean score for each palm worked out. The following results were obtained:-

	YELLOWIN	G	ORANGE SPOTTING					
Progeny	Score	Remarks	Progeny	Score	Remarks			
E 207	296.8	Most healthy	E 268	318.0	Most healthy			
E 268	286.3		E 216	300.2				
E 216	264.9		E 152	284.6				
E 152	241.6	Most yellowed	E 97	200.5	Most orange			
M.S.D. at	5% 23.1		M.S.D. at 5%	271	spotted			

The yield of each palm has been recorded for the past seven years by the staff of the Federal Experimental Station Serdang. The yields are as follows:- E 268 Grand Total of 57 palms yield for a period of 7 years 85779 lbs.

E 216	,,	,,	,,	57	,,	,,	,,	"	,,	,,	,,	,,	76508	,,
707				46									18050	
E 207 E 97	"	,,	"	62	"	"	"	"	,,	,,	"	"	60928	"
E 97	"	"	,,	60	"	"	"	"	"	"	"	,,	54991	,,

Statistical analysis was then worked out. Each progeny was then considered separately and the correlation co-efficient were then worked out for yield and Orange spotting score; and yield for Yellowing score. Similarly regression-co-efficient for yield in relation to Orange spotting score, and yield in relation to Yellowing score were calculated.

	Viold no.	E 268	216	207	152	97	5% M.S.D.
X	Yield per palm/year 1946-52. lbs. fruit bunches mean. Plot means.	215.0	193.3	141.2	152.3	130.7	27.2
Y	Orange spotting (six observers scale (10-1) Total of means of six plots.	318.0	300.2	200.5	284.6	200.8	27.1
Z	Yellowing (six observers scale (10-1) Total of means of six plots.	286.3	264.9	296.8	241.6	233.1	23.1
	P <sub>XZ</sub>	**************************************	+.416	+.541	+.388	**************************************	
	$b_{xz}$	**************************************	+5.696	+2.56	+3.52	**************************************	
	SE bxy.	1.28	1.67	.515	1.29	.736	
	$\mathbf{r}_{ ext{yz}}$	+.219-	+0.304	-0.155	+0.449	+0.067	
	$b_{yz}$	+1.842	+3.398	-1.52	+5.041	+.526	
	SE bxz.	1.10	1.43	-	1.47	_	
	$\mathbf{r}_{ ext{xz}}$	.089-	.457	-0.21	-0.006	-0.152	

(Significance at 5%, 1% and .1% indicated by one, two and three stars respectively).

From this it was concluded that in this field:

- (a) Orange spotting was significantly co-incident with depression of yield in all progenies.
- (b) Yellowing was also co-incident with depression in yield but the depression is only significant in E 216 and E 152 and not as severe as the depression due to Orange spotting.
- (c) Orange spotting scores and Yellowing scores are not correlated (except in E 216). It can safely be assumed that in general Orange spotting and Yellowing are quite seperate and unrelated phenomena.

These investigations however, cover only a few aspects of bronzing of oil palm. There are other aspects, such as the cause of orange spotting and yellowing as determined by the injection of elements such as iron, magnesium and potash. There are other aspects which are still under investigation such as the following;

(a) Injection of elements such as iron, magnesium and potash to determine the cause of orange spotting and yellowing. and (b) Sand culture of oil palms.

Errors, like straws upon the surface flow: He who would search for pearls must dive below.

Dryden.

When I get into my garden with aspade and dig a bed, I feel such an exhilaration and health that I discover that I have been defranding myself all this time in letting others do for me what I should have done with my own hands.

Emerson.

Tomorrow will I live, the fool does say; Today itself's too late; the wise lived yesterday.

Martial.

When we are planting for posterity, we ought to remember that virtue is not hereditary.

Thomas Paine.

A good book is the precious life-blood of a master-spirit, embalmed and treasured up on purpose to a life beyond life.

Milton.

#### THE REWARDS OF AGRICULTURAL LEADERSHIP.

In agricultural organisations, as in all other movements, good leaders are essential. Every member of any agricultural movement will always have the scope for the development of his leadership ability, if he takes an active part in its activity. From leadership in a small way the proven leader will progress to wider fields; from an agricultural group to the community, from the community to the country and so on. Agricultural leaders in major spheres do not spring from nowhere; they serve their apprenticeships in lesser areas of influence.

Progress in any agricultural community depends on the efforts of capable volunteer leaders and a readiness by the people to adopt new ideas as it does on the abilities and efforts of paid leaders. Many volunteer leaders serve; why they do so without financial reward surprises only those who have not taken time to consider the many kinds of rewards of leadership.

There are in every agricultural community people who will serve as leaders if a proper approach is used. Nearly every person desires to excel and lead in some field. The inner urge for asserting leadership is as important a provision for the advancement of community enterprise as the appetite for food is to the development of a child. A few want to be leaders and can do so if they are willing to pay the price in effort required.

Ability to lead and the desire to lead are developed through experience and exercise in leadership just as the strength of muscle or a mental faculty is increased by exercise. Conversely, ability to lead is diminished through failure to exercise it. Apparent genius in leadership is usually the result of hard work. Exercise in leadership through speaking at public meetings usually gives increased ability to do so, and gradually diminishes much of the embarrassment which comes to those who are not accustomed to addressing audiences.

Leaders derive enthusiasm, inspiration, and recreation from working with others. Most leaders who work with people having different religions and political opinions from their own, learn to have broader human interests and sympathies and greater respect and tolerence for the points of view of others.

Occupying a leading position in a community encourages more attention to personal appearance and good manners. The leader tries to win favour with his followers just as the salesman strives to please his customers. Positions of leadership frequently make the leader hospitable.

The agricultural leader must study human nature. He will need to learn the methods of other leaders, why and how individuals respond or fail to respond to different approaches. He will learn that appeals or suggestions which will gain the support of some will cause others to withhold co-operation. He will learn that some will refuse to take part in a project because others are given undue recognition. He will learn that some will attend almost any gathering where there will be good things to eat and that others seek only some real food for thought.

Leaders soon learn that people prefer to follow the leadership of those who do not seem too eager to thrust their leadership on others. People also prefer to have leaders who have demonstrated their right to lead by their achievements in the field involved. The leader also discovers that people prefer to be led by someone who is "one of them" rather than by one who intentionally or otherwise reminds them that he has more wealth, education, or other marks of distinction which tend to set him apart.

It is worth much to a leader to learn that many people who cannot be driven can easily be led. A little knowledge of how to engineer a cause is worth many times more than an ability to "railroad" it through without gaining popular support.

Just as knowledge is power in other fields, so facts learned by training, observation, and experience relating to leadership all help to make one a better agricultural leader. The leader becomes a better citizen because he learns both to share and delegate responsibilities. He learns to plan and work with others.

An important result of experience in agricultural leadership is that it usually increases one's ability to get along with people. When agricultural leaders solve the leadership problems, which confront them, they increase their ability to solve other life problems, since most of life's problems involve human relationships.

A majority of those who have much time to helping various agricultural activities may not be fully convinced that there is more satisfaction in giving than receiving, but many are inclined to agree that the greatest reward which hard-working, unselfish leaders get is the satisfaction that comes from doing something which seems worthwhile for the community. Leaders get the most satisfaction out of the leadership job which contains a challenge to their best efforts.

Leaders are cranks which turn the wheels of progress. Consequently, they bear the brunt of criticism, which must be accepted as a challenge to greater energy and success.

Another reward for leaders is that their work tends to give them association with other leaders, specialist workers, prominent citizens, and so on. From these association the leader may gain much in new ideas, specialised knowledge, contact with recognised authorities and the like.

Because leaders must be cheerful, optimistic and progressive, it becomes a source of pleasure and reward for each individual agricultural leader to work and associate with other leaders. Many feel that service in some agricultural community sphere is well worth while just to extend one's acquaintance and enlarge one's circle of interesting friends. To many people leadership activities are a form of recreation giving much return in pleasure and satisfaction.

Leaders, too, are sometimes rewarded by being chosen to attend conferences of special gatherings outside their own groups, districts or even countries.

Leadership in many of its forms offers advancement to the individual leader. Serving in committees often becomes a stepping stone to wider recognition which sometimes takes the form of election to public office. Such advancement may not provide an ideal motive for becoming an agricultural leader, but it nevertheless becomes a reward of leadership.

Concrete benefits of leadership do not always appear quickly. In many an agricultural community, the committee fighting for an amenity or other farming facilities may have to wait long to see the full value of its activity. In the interval the proposals may have divided the community, one faction condemning and the other praising the work of the leaders.

Anything an agricultural leader can do to raise the standards of his community helps to make a safer and better environment for his own children. Whatever makes one's neighbours more prosperous or makes the community a better place to live in helps to increase the worth of the area, financially as well as socially or morally.

There may be many agricultural problems which could be solved most effectively or economically by co-operative effort—problems such as wet padi cultivation, pest control, livestock improvement, marketing, and the like. In such cases, the leaders of movements to tackle such problems find that their outlay in time is subsequently repaid in a reduction of costs or increased efficiency when their ideas are accepted by the community. Many such problems cannot be solved by the individual farmer.

Most people do not express their appreciation of the good work done by their leaders, the weakness of human nature which is to be regretted. No leader can secure greater reward than to have his neighbours say "Well done! You have our appreciation and confidence. Let us make you a leader in more important endevours."

What a man does for himself dies with him, but what good he does for his community lives long after he is gone.

MD. ARIF BIN ABD. RAHMAN. (Old Boy)

Attempt the end and never stand to doubt, Nothing is so hard, and search wil find it out.

Herrick.

Though familiarity may not breed contempt, It takes off the edge of admiration.

Hazlitt.

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KUALA LUMPUR

### REPORTS.

# REPORT OF THE STUDENTS' COUNCIL OF THE COLLEGE OF AGRICUTURE MALAYA STUDENTS' UNION

(JANUARY 1953 — OCTOBER 1953).

The Students' Council for the academic year 1952-1953 ended its term of office on 15th April, 1953. During the period January 1953 to April 1953 it appointed a number of Sub-Committees to carry out various functions.

The following were the Sub-Committees appointed:

Constitution Review Sub-Committee.

Hostel Sub-Committee.

Finance Sub-Committee.

Constitution Review Sub-Committee.

The following served on the Sub-Committee:

Che Arshad b. Ayoub. (Chairman).

Mr. Khoo Swee Joo.

Che Othman b. Hashim.

The Sub-Committee reviewed the Constitution of the Union and discovered a number of clauses which could prove to be obstacles to the efficient functioning of the Union. In its report to the Students' Council the Sub-Committee recommended a number of amendments which were subsequently discussed and approved at an Extraordinary General Meeting of the Union.

#### Hostel Sub-Committee.

The following were appointed to the Hostel Sub-Committee:

Che Arshad b. Ayoub (Chairman)

Che Othman b. Hashim.

Mr. Tan Wah Boon.

Mr. Khoo Swee Joo.

Che Isa b. Abu.

The Sub-Committee investigated the living conditions of students at the College and made several recommendations to the Students' Council for the improvement of the hostel. These recommendations were later discussed at an Extra-ordinary General Meeting of the Union and it was unanimously agreed that the recommendations of the Hostel Sub-Committee should be forwarded to the Principal for consideration.

#### Finance Sub-Committee.

The Finance Sub-Committee consisted of the following:

Che Arshad b. Ayoub (Chairman)

Che Ali Ahmad b. Sliman (Hon. Gen. Secretary).

Mr. Saw Eng Kim (Hon. Treasurer).

Mr. Saw Eng Kim was later replaced by Mr. Pang Tung Wah. The Sub-Committee drew up a provisional budget for the academic year 1953-1954.

#### P. M. S. F. Conference.

Che Arshad b. Ayoub and Che Ali Ahmad b. Sliman were elected delegates to represent the Union at the Inaugural Conference of the Pan-Malayan Students' Federation held in March 1953 at the University of Malaya, Singapore.

#### Graduation Tea Party.

The Annual Graduation Tea Party was held on the 13th April, 1953. The following served on the Sub-Committee which was appointed by the Students' Council to organise the tea party:

Che Ahmad b. Noor.

Mr. Khoo Swee Joo.

Mr. Saw Eng Kim.

Che Othman b. Hashim.

Che Abdul Kadir b. Baharom.

#### Annual General Meeting.

The Annual General Meeting of the Union was held on 29th June, 1953. The meeting was presided over by Che Arshad b. Ayoub, the outgoing President.

The following were elected to the Students' Council for the academic year 1953-1954:

President .. .. Che Ahmad b. Abu Samah.

Vice-President .. .. Che Wan Nik b. Ismail.

Hon. General Secretary .. Mr. Lee Buck Heng.

Hon. Treasurer .. .. Che Ibrahim b. Haji Hilaluddin.

Hon. Asst. Treasurer .. . . Mr. Goh Khek Boon.

Hon. Hostel Secretary .. Che Mohd. Noor b. Ismail.

Hon. Sports Secretary .. Che Yahil b. Mohamed

Hon. Literary & Social

Secretary .. .. Che Mohd. Isa b. Ibrahim Shah.

Hon. Secretary,

Students' General Store Mr. P. Suntharalingam.

Editor, Magazine of

the Students' Union .. Mr. Lam Peng Sam.

Major Scholars' (Che Ani b. Arope. Representatives ... (Mr. P. V. Thevan.

Minor Scholars' (Che Yahaya b. Din. Representatives (Raja Ahmad Tajuddin

Representatives ... (Raja Ahmad Taj (b. Raja Razman. Hon. Auditors

(Che Abdul Rahman (b. Ismail. (re-elected). (Mr. Tan Wah Boon (re-elected).

The total number of candidates returned was sixteen.

The meeting also discussed the provisional budget submitted by the Finanec Sub-Committee. The budget was passed after certain amendments had been made.

#### Council Meetings.

Since coming into office the Students' Council has met three times. Various problems pertaining to the general welfare of members of the Union were discussed at the meetings. The decisions taken were forthwith carried out by the various executives serving on the Council.

#### Emergency Relief Fund.

At the second meeting of the Students' Council it was unanimously decided that an Emergency Relief Fund should be established with the object of issuing loans to members who were faced with financial difficulties in times of emergency. The Council forthwith appointed a Sub-Committee to establish and manage the Fund.

The following were appointed to the Sub-Committee:

Mr. P. V. Thevan (Chairman) Che Ani b. Arope. Che Yahaya b. Din. Raja Ahmad Tajuddin b. Raja Razman.

The Fund has received very good support ever since its inception. Most of the students are subscribing regularly to it. Several loans have been granted to members so far.

#### Elections Sub-Committee.

The Students' Council at its third meeting decided that the current system of election which required voting to be done at the Annual General Meeting was cumbersome and involved a great deal of time and labour. A new system of election was proposed and an Elections Committee appointed by the Council to organise and supervise the elections for the next academic year.

The following were appointed to the Committee:

Mr. Lee Buck Heng. Che Ani b. Arope. Mr. P. V. Thevan.

The Committee is expected to submit a draft plan for the elections to the Students' Council for approval by the end of the present academic year.

#### P. M. S. F. Annual Conference.

At its third meeting the Students' Council also elected Che Arshad b. Ayoub and Mr. Lee Buck Heng as delegates of the Annual Conference of the Pan-Malayan Students' Federation to be convened some time in December this year or the following January at the University of Malaya, Singapore.

#### Weekly Bus Trips.

During the second term of the last academic year the College authorities agreed to provide the Union with a bus each week to carry students down to Kuala Lumpur for entertainment. Members have taken full advantage of these weekly bus trips which serve a very good purpose in that they help to break the monotony of life at Serdang where facilities for entertainment are so lacking, and transport is almost invariably a problem.

#### General.

The Students' Council has so far managed the affairs of the Union without encountering much difficulty. Until recently finance has often turned up to be a major problem to the Union. This year, however, with the increase of the termly subscription from three to six dollars per member, and the entrance fee from two to five dollars per member the Union has had more funds to manage its affairs. Nevertheless, in some instances the activities of the Union are still hampered by the lack of sufficient funds.

The question of transport, too, has often presented an obstacle to the activities of the Union. The College is located some fourteen miles from Kuala Lumpur. This physical separation is in itself a handicap to the Union whose activities necessitate frequent visits to town. On numerous occasions the Union has had to borrow the College pick-up.

It is heartening to note that members of the Union are showing an increased interest in the affairs of the Union. Various suggestions for the improvement of student life at the College have been put forward by members since the beginning of the present academic year. These suggestions have been discussed at meetings of the Students' Council and have accordingly been adopted, or rejected if considered not in the best interest of the student body. The Students' Council welcomes such suggestions and shall always give due consideration to them.

It is hoped that along with the greater interest they are showing in the work of the Union members will exhibit a greater measure of co-operation, understanding and tolerance, without which no organisation can function successfully. This is imperative in order that unity throughout the student body may be attained.

The Students' Council is greatly indebted to the various sub-committees for carrying out successfully the jobs assigned to them. The Council is grateful to the College authorities for providing the Union with transport on numerous occasions.

LEE BUCK HENG, Hon. Secretary, Students' Council, College of Agriculture Malaya Students' Union-

#### STUDENTS' UNION GENERAL STORE.

Membership. Every student is a member of the Students' Union General Store. The following are the Committee Members.

Shares. The Store is run on a co-operative basis, the capital being derived from the sale of shares valued at one dollar each. There is no limit to the number of shares each member may possess but each has to buy a minimum of three shares.

Management. The Store is managed by the students themselves. The store is open to business from Sundays to Thursdays, between the hours of 7.30 p.m.—9.00 p.m. One student is detailed to attend to sales each evening. Business is confined only to students and members of the College Staff.

We started business during the first term with a capital of three hundred and ninety-one dollars and thirty-three cents. The amount derived from shares was two hundred and twenty dollars and the amount in the reserve fund was one hundred and seventy-one dollars and thirty-three cents. All goods sold at the store are purchased from the Whole-sale Co-operative Store at Kuala Lumpur. Students' daily necessities, drink and other provisions are available. All goods are sold at reasonable prices.

The store is closed at the end of each acadamic year when the profit is, after deduction for reserve fund, shares etc., divided according to the number of shares each member holds.

Acknowledgement. We owe our sincere thank to the Principal's Deputy, Mr. Yap Chin Hee, for his keen interest and valuable advice. Our thanks also go to those Old Boys who have been kind enough to contribute towards the reserve fund.

Last but not least our thanks are also due to the members of the students' union general store for their close co-operation.

Mr. P. SUNTHARALINGAM,

Hon. Secretary,

Students' Union General Store.

#### HOSTEL REPORT.

(JANUARY 1953—OCTOBER 1953.)

#### **COMMITTEE MEMBERS:**

Meeting: The Hostel committee members usually meet once a month to discuss topics concerning food in particular, not leaving aside complaints and suggestions forwarded by the students through their respective Dormitory Representatives. Food menu needs alteration and this is made practicable by the assurance of the Hostel Superintendent whose presence we need in every meeting.

Catering: Flat rate system was started in the month of June 1953 and this has been found to be successful. Each student pays \$1.50 per day. The supply of food at this rate is very satisfactory.

Dormitories: With the increase of the number of students from forty-five to seventy-three including the fourteen minor scholars, the dormitories are very much crowded with each accomodating twenty-three students where normally twenty is at the most. The Students' Council room is now turned into a dormitory, with five people in it, all happen to be minor scholars.

We hope that the two newly built dormitories will be ready by the beginning of the third term of this academic year. This we hope will enable us to live in a less crowded condition. We thank the Hostel Superintendent (who is also the Registrar and Bursar of this College) for his service and whole hearted work and for being able to supply us with things we need reasonably.

MOHD. NOOR BIN ISMAIL,

Hostel Secretary.

#### LITERARY AND SOCIAL SOCIETY REPORT.

(ACADEMIC YEAR 1953/54 (JUNE TO OCTOBER)

#### Committee Members.

Chairman
Hon. Secretary
LibrarianMr. Tee Thean Soo.
Asst. Treasurer
Major Student's Representatives: . Che' Ani bin Arope.
Mr. P. Vamathevan.
Minor Student's Representatives Che' Yahya bin Din.

The Society is managed by the Literary and Social Committee, and with the full co-operation of the committee members and the students, it has been functioning

Yang Mulia Raja Ahmad Tajuddin.

Movies. Weekly screenings of both commercial and educational films has been carried out. The shows are not only for the students but for the staffs of the College and the Federal Experiment Station as well.

very smoothly.

Dancing. Dancing practices are held on Tuesdays and the attendances have been very satisfactory. A good number of the students have special liking for this art and five of them voluntered to be dancing tutors.

Excursions. During the first term, the students had a memorable day when they visited the Radio Malaya Broadcasting Station in Kuala Lumpur. A few days later a group of members spent a happy and useful time at the Hong Fatt Tin Mines.

In the later part of the second term, a picnic was held in Port Dickson and it was indeed a successful one.

Library. The library is now equipped with a good number of interesting books and it is indeed very popular among the students.

Talks. The members benefitted greatly by the highly appreciated talk on 'An Assignment for Malayan Youths' given by Che' Rashid.

MOHD. ISA IBRAHIM SHAH,

Literary & Social Secretary,

Students' Union

College of Agriculture, Malaya.

#### SPORTS ROUND-UP.

(JUNE 1953 — NOVEMBER 1953)

#### Committee Members.

ChairmanChe	Ahmad bin A. Samah.
Sports SecretaryChe	Yahil bin. Mohamed.
	Ibrahim bin Hi, Hilaluddin,

#### Captains:

Meetings. The first meeting of the Sports Committee was held on 17/7/53, immediately following the election of Captains for the various games.

The Committee met for the second time on 22/10 53.

An outcome of the first meeting was a series of Football and Badminton matches during the first term of the acedamic year 53/54.

The second meeting result results in the formulation of a programme of Hockey and Badminton fixtures for the second term. As we are still in the middle of the term at the time of this publication, only a few of the matches have been played since.

Soccer. We had a successful soccer season during the first term. Owing to Transport difficulties only 5 matches were played, 4 on home ground and I away at the Kepong Forest School.

Results.	College	Vs.	Hashim's XI won	9-2.
			Sg. Besi Police won	6-2.
	,,	Vs.	Agricola won	8-2.
	"	Vs.	Ampang Youth Club drew	1-1.
		Vs.	Kepong Forest School won	4-1.

Badminton. Badminton being a popular game was played throughout the year. Although we have a team of promising young players, attempts to raise the standard of the game was marred by the lack of a proper out-door court. (The present in-door court has a low ceiling).

Out of the matches arranged only the following have been played:

College	Vs.	Sg. Besi Police	 won	7—0.
,,		Old Boys (Singapore)	 won	5-0.
,,	Vs.	Agricola	 lost	1-4.
,,	Vs.	Ampang Youth Club	 lost	2-5.
by S. B		Kepong Forest School	 won	4-0.

#### THE SERDANG SUN

Hockey. This year we were unable to participate in the Ulu Langat District league, as the fixtures dates coincide with our holidays. However we will participate in the comming knock-out compitition.

Seven friendly matches have been arranged and only the following were played since.

Against. High School, Kajang .. .. Drew 1—1.

Methodist Boy's School

School K. Lumpur ... lost 0—1.

High School, Kajang

(return match) ... Abandoned due to rain.

Ulu Langat District XI. .. lost 0—1.

Tennis. Again in tennis we were handicapped by the poor condition of the court. And those who have taken interest in the game made but little progress.

The only friendly match played was against the Singapore Old Boys, who managed to beat us with a narrow margin of 3 games to 2.

Table-tennis. The enthusiasm for Table-tennis was put off by the absence of a proper place for the table.

However a friendly match against the Singapore Old Boys results in victory to our team by 4 games to I.

Indoor Games. An open Championship Tournament for Carrom, Draught and Chess was run and completed recently. The following were the results:-

	Champion.	Runner-up.
Carrom :-		
Single.	Nordin b. Hj. Husain	Yahya b. Hashim.
Double.	Goh Khek Boon and Wan A. Khalid b.	
	Wan A. Manaf.	Yahya b. Hashim and K. Selvadurai.
Draught :-		
	Mohamad b. A. Rahman	A. Rahman b. Jaffar.
Chess :-		
	A. Rahman b. Jaffar	Ooi Kiew Jin.

Tournaments. All other Inter-dormitory and open Championship Tournaments will be held during the third term of the current academic year.

YAHIL MOHAMED.

Sports Secretary.

#### ACKNOWLEDGEMENT.

We should like to express our grateful thanks to His Excellency the High Commissioner, General Sir Gerald Templer who had so kindly given of his valuable time to write us a Foreward.

Thanks are also due to those Schools and Institutions concerned that sent us the following magazines:

1.	Magazine of the Students' Union University of Malaya.
2.	Ibrahim School MagazineKedah.
3.	The High School Optimist
4.	Magazine of the Chung Ling High SchoolPenang.
5.	The Cliffordian
6.	The Kajang, Ismail Eng. SchoolKota Bharu.
7.	The Sulaimanian
8.	The Onward, Govt. Eng. SchoolKluang.
9.	The Kajang High School
10.	The Magazine of the High SchoolBukit Mertajam.
11.	The Beacon, Methodist Girl SchoolKuala Lumpur.
We	apologise for any inadvertent omissions.

# BAHAGIAN

# WELATU.

#### KATA PENYUNTING.

Kita berasa sukachita kerana mujallah ini telah dapat di-zahirkan hari ini sebagai bilangan yang kedua-nya sejak salepas perang. Sunggohpun kezahiran-nya maseh jauh dari sempurna dalam segala<sup>2</sup>nya, tetapi tidak-lah pula kurang dari membawa pengertian yang besar di-dalam tarikh maktab ini, dengan lain<sup>2</sup> perkataan kita telah dapat menjalankan perkhidmatan dengan segala chara untok mesharakat umum walaupun dengan bertateh setapak demi setapak.

"The Serdang Sun atau Matahari Serdang" ada-lah membawa pengertian yang luas bukan saja di-tujukan untok memberi penghiburan kepada pembacha²nya, malahan tujuan kita ia-lah untok memberi pengtahuan kepada seluroh pembacha-nya di-sagenap gulongan terutama bagi pehak orang² yang ada berkaitan dengan perkara² pertanian di-negeri kita ini.

Sejak lahir-nya mujallah kita bilangan yang pertama pada tahun yang lalu, kita telah menerima banyak chadangan² dan saperti biasa tidak pula berkurangan menerima teguran² dari pembacha² dan semua-nya itu ada-lah kita terima dengan segala senang hati dan penoh keshukoran jua. Walau bagaimanapun, kita sendiri khas-nya, tidak berasa puas bahawa bilangan ini telah terchipta dengan chara yang chukop sempurna, kerana menurut pendapatan kita dari segi Ilmu-Jiwa, bahawa, "Manusia selama-lamanya ta'kan merasa puas dengan sesuatu." Kita memang sedar dan insaf bahawa huruf² 'burok dan baik, puji dan keji' ada-lah pakaian manusia, selagi manusia di-kata manusia!!

#### Seruan kita pada murid<sup>2</sup> tua.

Kita mengambil peluang mengingatkan dengan sechara ikhlas jua kepada semua murid² tua maktab ini, bahawa kita sangat berkehendak dan sentiasa berkehendakan bantuan mereka bukan saja dalam perkara menjayakan mujallah ini tetapi juga dalam sagenap perkara yang mengenai dengan alam pertanian. Kita sangat berasa sedeh bahawa hingga ini, kebanyakan penuntut² kita bila saja keluar dari maktab ini ada-lah berperasaan bahawa perhubongan mereka dengan maktab telah putus sama sekali; dan perasaan yang demikian ada-lah membawa kesusahan yang besar kalau kita hendak menyatukan fikiran² darihal perkara² yang mengenai dengan kedudokan kita dalam dasar yang tertentu. Sebalek-nya kalau-lah murid² tua kita mempunyai pengertian dan rasa tanggong jawab yang sabenar terhadap kewajipan-nya dan sanggop berbimbing tangan dengan kita dari semasa demi semasa, maka sudah barang tentu chorak yang gilang gumilang dalam erti-kata pembangunan negara kita dalam segi pertanian dapat di-laksanakan. Kita harap murid² tua sedar dalam perkara ini!

#### Rasa kesedaran.

Dalam keluaran ini kita muatkan banyak perkara? yang mengenai dengan soal 'padi beras' di-Tanah Ayer kita, ini ada-lah menunjokan rasa kesedaran tentang betapa mustahak-nya perusahaan padi di-Malaya. Sasunggoh-nya kita merasa bahawa usaha yang tersebut ada-lah menjadi kewajipan yang terutama — kewajipan putera puteri kita ahli² pertanian, dan Pegawai² bangsa kita yang berkenaan dengan-nya supaya tidak ternanti-nanti lagi menjalankan kewajipan-nya menuju segala sesuatu yang mustahak, kalau-lah masing² insaf dan berchita-chita berkehendakan negara kita supaya berdiri di-atas kaki-nya sendiri. Kita berdo'a!!!

ARRI

#### SIAPA KAH TULANG BELAKANG BANGSA MELAYU?

Berbagai bagai jawapan akan di-dapati bersangkut dengan soalan ini—ada yang berkata tulang belakang bangsa ia-lah para pelajar Melayu, ada pula yang berkata, "Pegawai Pegawai Melayu yang memegang jawatan Kerajaan" dan yang lain pula berpendapatan bahawa, 'Kaum Siasah Melayu atau Politicians' itu-lah orang yang sabenar benar menjadi tulang belakang bangsa. Segala jawapan atau tekaan ini harus menasabah belaka jika di-tilek dari segi yang tertentu, tetapi pada 'am-nya, saya fikir, kumpolan atau kaum² yang tersebut di-atas tadi boleh-lah di-sifatkan sebagai anggota bangsa Melayu yang mustahak lagi berguna bagi kemajuan bangsa. 'Tulang Belakang' bangsa Melayu pada pandangan saya ia-lah 'KAUM TANI MELAYU'.

#### Oleh: A. B. Zainuddin, 1950/53.

Jika kita anggap bahawa 'tulang belakang' manusia itu ia-lah satu alat 'penegak' badan, maka dapat juga kita ibaratkan bahawa Kaum Tani Melayu itu-lah penegak bangsa-nya. Mengapa tidak? Lebeh daripada tiga suku bilangan umat

Melayu kita ia-lah Kaum Tani dan kepada mereka itu-lah bergantong sebahagian besar perkeluaran hasil bumi Malaya—sama ada yang berupa jenis barang makanan mahu pun tahan² mentah saperti getah, damar, rotan kayu kayan dan sebagai-nya, hasil hasil ini-lah satu daripada puncha economy negeri ini yang membawa pada kema'muran. Dengan yang demikian boleh-lah di-katakan kebanyakan daripada kekayaan yang kita dapat lihat di-pekan pekan atau di-bandar bandar itu, ada-lah hasil dari titek peloh Kaum Tani Melayu.

Keadaan dan kedudokan Kaum Tani Melayu, maseh tidak begitu burok sebagaimana yang di-sangka, kerana hak dan milek mereka maseh ada dalam genggaman nya sendiri, sekalipun ada di-antara hak atau milek mereka itu telah dan sedang diperkuasai oleh orang tengah atau kaum modal (bangsa asing.) Jika di-taksirkan dengan kasar, maka tiap² 10 ekar tanah yang di-punyai oleh bangsa Melayu,  $9\frac{1}{2}$  ekar ada-lah hak milek Kaum Tani.

Miskipun banyak di-antara mereka itu yang maseh kurang pelajaran dan hidup dalam keadaan yang miskin, tetapi kehidupan mereka ada-lah maseh bibas atau merdeka dengan tidak menerimai segala perentah jika di-bandingkan dengan sa-gulongan besar pekerja pekerja Melayu di-gudang², mahu pun pegawai² dalam jabatan Kerajaan yang sentiasa menerima seribu satu macham bebanan yang di-beri oleh mandor, taukeh atau tuan mereka. Di-sini-lah letak-nya kekuatan kita yang batin atau tersembunyi 'potentialities' bangsa Melayu. Kalau iktisad atau economy Kaum Tani Melayu dapat di-perbaiki, di-selenggara dan di-kuasai oleh bangsa-nya sendiri, maka sudah barang-nyata bahawa chorak kehidupan dan nasib bangsa Melayu akan terchipta dengan baik-nya.

Langkah² bagi membaiki kedudokan Ahli Pertanian sedang di-jalankan oleh pehak Kerajaan dan juga oleh kaum pelajar di-kampong². Di-samping itu satu semangat hendak-lah di-semaikan—semangat menuntut kesenangan dunia dan akhirat. Igama Islam tidak sekali kali menegah umat-nya pada menchari segala sesuatu yang boleh menjadikan kesenangan atau kekayaan sechara halal, sebagaimana sabda Nabi S.A.W., 'Ber-ibadat-lah kamu sebagaimana kamu akan mati pada hari esok, dan chari-lah harta atau kekayaan kerana bekalan kamu hidup seribu tahun." Bergantong semata mata kepada takdir atau nasib itu ada-lah suatu semangat yang menyebabkan kemundoran sa-saorang! Orang yang mentafsirkan bahawa 'Dunia ini untok orang kafir' maka orang itu ada-lah orang yang sabenar benar sesat. Bukan-kah dunia ini di-jadikan oleh Tuhan untok sekalian makhlok Allah? Siapa yang berusaha dan kuat menchari maka sudah barang tentu orang itu-lah yang berjaya. Oleh itu chari, dan chari-lah apa juga yang di-kehendaki supaya hidup berbahgia dunia dan akhirat.

Ayohai Pa'Tani penegak negara, Tukar-lah segera chorak dan chara, Ka-medan kemajuan hendak-lah mara, Supaya hidup dapat bahgia.

"SELAMAT BEKERJA DAN SELAMAT MAJU JAYA."

#### MALAYA DENGAN PADI.

(Oleh: YAHYA BIN HASHIM)

Bergantong bulat² mendapat barang² makanan yang mustahak dari negeri² asing ada-lah suatu perkara yang patut di-elak. Malaya hari ini, yang mana beras menjadi makanan yang mustahak kepada pendudok²-nya ada-lah berkehendakan kira² sebanyak satu juta ton untok menchukopi bagi setahun, tetapi tiada sampai separoh dari angka ini yang harus dapat di-keluarkan oleh Malaya sendiri dan yang lebeh-nya terpaksa-lah di-beli dan di-masokan dari luar negeri saperti Siam, Burma dan lain²-nya. Jika di-pandang dengan sekali imbas-nyata-lah sekarang bahawa beras dapat di-beli dengan harga murah dari negeri² jiran yang tersebut, tetapi kita sebagai pendudok Malaya, tidak-lah harus bersenang hati dengan keadaan yang demikian kerana harus pada satu masa yang tidak dapat di-sangka atau di-teka nanti munkin harga yang murah itu tidak berkekalan dan bagaimana kalau harga-nya naik berlipat ganda?

Mengikut satu penyata, 'Kerajaan' menjangka dapat mengeluarkan sebanyak 535,000 ton beras tempatan dalam tahun 1955, tetapi kalau kita taksirkan pula tambahan pendudok<sup>2</sup> Malaya di-waktu itu nanti, maka harus-lah pengeluaran beras yang di-jangkakan itu tidak juga menchukopi untok pendudok<sup>2</sup> negeri ini. Kekurangan beras berma'ana kekurangan makanan ada-lah membawa akibah yang paling burok, akibah penderitaan yang di-alami di-masa pendudokan Jepon dahulu akan berbalek semula!

Jika di-kaji baik², 'Malaya' ia-lah sabuah negeri yang mempunyai tanah atau sawah yang subor, tetapi sayang, pendudok²-nya maseh tiada berapa tahu menghargai kesuboran tanah itu untok di-tanam dengan padi sebagai keperluan yang utama. Sunggoh pun Kerajaan telah dan sedang menggalakan pendudok² negeri ini supaya meluaskan usaha berchuchok tanam, padi khas-nya, tetapi segala usaha itu maseh dalam keadaan beku.

Mengapa-kah sebab-nya pendudok negeri ini tidak chenderong pada bertanam padi itu ada-lah satu tanda tanya yang besar tetapi kita juga tidak-lah menafikan bahawa perusahaan ini sekarang ada-lah sedang di-kendalikan oleh orang Melayu di-kampong² sahaja. Kalau-lah Malaya mahu berdiri di-atas kaki-nya sendiri dalam per-kara ini, maka tidak-lah segia bahawa perusahaan bertanam padi itu hanya terbatas pada pendudok Melayu semata mata!

Walau bagaimana pun, pengeluaran beras tempatan memang perlu di-tambah dengan jalan meluaskan tanaman padi dan sa-imbang dengan-nya pula keadaan burok tidak akan berubah kalau sekira-nya penanam² padi itu tidak mendapat bantuan yang berupa membina penghidupan mereka. Dengan lain² perkataan mereka perlu mendapat ilmu² pertanian yang scientific. Pusat latehan bagi mendidek ahli² pertanian di-tiap² negeri harus di-adakan sama ada di-bantu oleh Kerajaan atau di-dirikan dengan sechara sukarela pendudok² itu sendiri. Dengan ada-nya pusat latehan yang tersebut maka ikhtiar mendidek ahli² pertanian dapat di-lancharkan.

Masa-nya telah sampai bahawa semangat baru yaani semangat pembinaan negara misti di-punyai oleh tiap² ahli pertanian negeri ini, chuma orang yang berjiwa baru sahaja yang harus dapat meleborkan segala sesuatu-nya yang tidak sesuai lagi dengan zaman sekarang. Kalau peraturan lama dan langkah lama itu-lah juga di-jalankan terus menerus maka taraf penghidupan anak negeri ini ta'kan berubah dan penderitaan yang burok tetap berkepanjangan selama lama-nya.

#### MAKANAN.

Ta'siapa yang hidup di-muka dunia ini tidak berkehendakan makanan, andai-nya hingga binatang² yang besar, kechil dan melata hatta tumboh²an juga berkehendakan makanan untok hidup-nya. Hanya jenis makanan dan banyak sedikit-nya makanan itu yang berasingan antara satu dengan yang lain.

Pada masa ini pakar<sup>2</sup> (ahli bijak pandai) di-dunia ini sedang bersunggoh<sup>2</sup> menyelideki atau menyiasat chara bagaimana supaya bahan<sup>2</sup> makanan dapat di-tambah untok mengelakan suasana burok yang tidak di-ingini itu berlaku. Satu badan yang bernama Pertubohan Pertanian dan Makanan (F.A.O.) di-bawah anjoran Pertubohan Bangsa<sup>2</sup> Bersatu (U.N.O.) telah di-tugaskan supaya mengkaji segala masaelah yang bersangkut paut dengan pekara ini. Begitu juga Kerajaan Persekutuan Tanah Melayu pun sedang menjalankan tugas-nya yang menesabah bagi menambahkan perkeluaran barang<sup>2</sup> makanan tempatan.

Tanah Melayu yang anak negeri nya sebahagian besar memakan nasi adalah sedang membeli beras dari luar negeri yang berjiran dengan-nya. Dari segi iktisad, wang negeri ini yang telah dan sedang di-pergunakan untok membeli barang² dari luar negeri itu bukan-lah satu angka yang kechil. Itu pun belum termasok lagi kira² wang yang di-pergunakan untok membeli barang² yang lain yang sama mustahak nya saperti susu, gula, tepong, alat² pakaian, ubat-ubatan dan sa-umpama-nya.

Mengapa dan kenapa tanah ayer kita maseh bergantong pada dunia luar itu ada-lah satu so'al yang rumit dan menjadi tanda tanya yang besar di-hadapan kita sekarang, pada hal Malaya bukan sahaja bersetuju hawa dan tanah-nya dengan tanaman saperti getah dan kelapa malahan, Malaya juga sangat sesuai dengan berbagai² jenis tanaman yang lain saperti padi, jagong, kopi, teh, nenas, pokok buah²an dan lain² lagi. Tidak pula ada sebab² yang tidak bersetuju bagi memelihara hidup²an saperti ayam itek, kerbau, lembu, kambing dan sa-umpama-nya. Malang sekali pendudok negeri ini maseh kuat menumpukan pandangan-nya kepada getah semata² dan kalau ada pun perusahaan yang lain tetapi itu ada-lah sechara kechil sahaja, ini ta' dapat di-salahkan kerana orang ramai maseh mempunyai keperchayaan dan perasaan yang besar bahawa getah itu satu perniagaan yang agong di-pasar dunia.

Bagaimana kah pula sekira-nya harga getah jatoh dan tiba musim melisit? Bagaimana-kah pula kalau kedatangan beras dari luar negeri itu tersekat oleh sesuatu sebab yang tidak di-sangka yang harus terjadi? Sanggop-kah kita berpuasa atau menahan kelaparan? Tatkala itu nanti manusia akan hilang budi pekerti-nya dan jatoh ikhlak-nya, huruhara akan timbul, rompak samun akan berleluas hatta perbunohan² juga munkin berlaku.

Oleh itu ada-lah tanggongan dan bebanan kita, bebanan orang muda, bebanan yang harus di-pikul oleh kaum tani. Pemuda pemudi harus menguatkan 'azam-nya dari sekarang dan harus mempunyai rasa tanggong jawab yang sabenar² terhadap negeri-nya. Berserah dan berharap kepada orang tua² kita yang telah lemah tenaganya dan berusaha pada sakeping tanah yang ta'sampai sekumin itu ada-lah membawa hasil yang ta'sempurna dan ta'menchukopi!!

Tahu-kah orang muda<sup>2</sup> bahawa iktisad negeri terletak di-tangan 'petani<sup>2</sup>'? Di-Amerika Sharikat, New Zealand dan Australia mithal-nya, petani<sup>2</sup>-nya ada-lah mengambil bahagian yang besar dan terutama sekali atas soalan iktisad negeri-nya.

Kesimpulan-nya barang<sup>2</sup> makanan ada-lah mustahak dan berikut dengan-nya perusahaan ini hendak-lah mendapat tempat yang pertama yang segia di-usahakan oleh anak negeri ini untok negeri ini supaya tanah ayer kita dapat berdiri di-atas kakinya sendiri.

YAHAYA BIN DIN.

#### TANGGONG JAWAB DIRI SENDIRI

Ilmu pertanian ada-lah satu<sup>2</sup>-nya ilmu yang berguna dan mulia dalam pengertian kehidupan manusia yang mempunyai rasa tanggong jawab terhadap bangsa dan nusa-nya.

'Oleh: AKBA.'

Barangkali tiada sa-orang pun yang tidak tahu bahawa semua barang² makanan dan kebanyakan alat pakaian manusia ada-lah di-terbitkan dari usaha pertanian, pendek kata pertanian ia-lah puncha yang menjadikan sa-sabuah negeri itu mendapat kema'moran atau sebalek-nya. Oleh kerana mustahak-nya perusahaan pertanian itu pada manusia maka lebeh separoh pendudok dunia ini mempunyai penghidupan chara bertani. Tidak-lah pula kita hendak menafikan bahawa perusahaan² yang lain itu kurang mustahak-nya akan tetapi 'pertanian' ada-lah kepentingan yang utama!

Kita pernah mendengar banyak bilangan manusia di-sana sini yang hidup terlantar dalam penderitaan yang menggerunkan ada-lah akibah dari kekurangan makanan khas-nya dan kekurangan hasil pertanian am-nya. Ta'usah-lah kita mengkaji darihal keadaan dunia luar dengan luas-nya tetapi sebagai perbandingan maka segala kemajuan yang di-dapati oleh pendudok² negeri luar yang telah maju itu harus-lah pula di-jadikan perhatian kita.

Malaya sebagai Ibu Pertiwi bangsa Melayu tidak-lah segia mengalami penderitaan burok untok selama²-nya kalau anak bangsa seluroh-nya perchaya bahawa pertanian itu satu usaha yang boleh meninggikan taraf hidup bangsa-nya sendiri. Ahli² pertanian hendak-lah sedar dan mengambil tindakan yang utama atas soal ini! Kemewahan dan kema'moran sa-sabuah negara bergantong atas taraf hidup anak negerinya dan dengan lain² perkataan, segala sesuatu-nya ada-lah terpulang pada ukoran diri sendiri memileh jalan yang mana patut di-tuju.

"Pemuda harapan bangsa dan pemudi tiang negera" hendak-lah jangan lupa bahawa bukan semua orang yang lulus dari sekolah2 itu misti memegang jawatan Kerajaan; bukan semua-nya yang patut menjadi tentera dan tidak-lah pula tiap2 orang yang harus menjalankan perniagaan, tidak selayak-nya juga semua orang misti menjadi buroh!! Peluang maseh terbuka dengan luas-nya supaya pemuda pemudi membuat penghidupan sendiri atau penghidupan di-kampong2. Penghidupan kampong itu pula tidak-lah bermaana atau terbatas bahawa kita misti mengikut kaedah<sup>2</sup> lama saperti yang ada sekarang. Penghidupan kampong dalam erti kata dunia pertanian adalah amat luas. Usaha<sup>2</sup> yang besar patut di-taja, chara<sup>2</sup> bekerja hendak-lah dengan peraturan, jenis<sup>2</sup> tanaman hendak-lah di-susun dengan chara yang sepatut-nya. Sebalek-nya, bukan-lah tanaman padi semata<sup>2</sup> yang layak di-amalkan oleh semua orang Melayu, malahan beberapa jenis perusahaan yang lain patut di-selenggara dan di-amalkan. Memelihara hidup hidupan ada-lah juga termasok dalam daftar kebudayaan pertanian; pendek-nya banyak benar jenis pekerjaan yang boleh di-usahakan oleh orang kita untok kepentingan sendiri hatta bagi faedah negeri-nya. Apa yang di-kehendaki ia-lah semangat dan kechenderongan sa-saorang bagi menyelenggarakan usaha nya. Kalau pemuda pemudi angkatan baru insaf dan sedar bahawa diri-nya mempunyai tanggong jawab yang besar dalam pembangunan negeri-nya maka segala kesusahan<sup>2</sup> yang di-agong agangkan-nya itu munkin dapat di-kikis dan di-lupakan dari jiwa-nya. Jika di-mana ada kemahuan, di-situ ada jalan-nya!

#### MESHARAKAT MELAYU SAPINTAS LALU.

(Oleh: MUBAR)

Kita tidak dapat menafikan bagaimana sedeh-nya mengenangkan kekurangan kemajuan bangsa Melayu dalam serba serbi-nya. Sunggoh pun begitu, kita berasa amat heran kerana tidak pula semua orang Melayu yang mahu sedar dan insaf akan segala penanggongan-nya, bahkan mereka tidak pula mahu bersatu menuju chara² penghidupan baru. Selagi orang Melayu hidup dengan perpechah belah saperti tandok diberkas angkoh-nya itu, maka selagi itu-lah kejayaan sesuatu-nya ta'munkin terchapai.

Sebalek-nya pula banyak orang Melayu yang mengaku diri-nya sebagai 'Penganjor' tetapi bila kita tapis, ta'berapa kerat sahaja orang yang mengaku penganjor itu yang mempunyai kejujoran dan bertenaga untok bangsa-nya. Choba kita masok ka-dalam sesuatu meshuarat pertubohan bangsa kita, neschaya kita dapati meshuarat itu akan di-hadziri oleh wakil² dari sagenap cherok rantau negeri ini. Di-situ beberapa perbinchangan akan kedengaran, beberapa shur akan di-kemukakan dan berikut-nya bahathan yang hangat akan di-dapati, sa-orang lepas sa-orang akan bangun mengeluarkan segala kata hati-nya. Tetapi sayang kebanyakan shur² dan kebanyakan chadangan² yang di-buat dalam meshuarat itu akan tetap tinggal di-dewan meshuarat itu semata mata. Alang-kah elok-nya jika masa yang di-pergunakan untok berbahath yang siasia itu di-gunakan dengan lakunan ya'ani dengan kerja? Aneh sekali, telah menjadi pengalaman bahawa satu² shur yang baik sentiasa menjadi bangkangan dan mendapat

tentangan yang hebat. Bahathan yang di-buat selalu-nya bukan untok menchari kebenaran, malahan semata mata untok menchari kemenangan diri sendiri sahaja. Ini kah yang di-namakan kemajuan?

Penuntut-penuntut dengan kebudayaan. Banyak penuntut<sup>2</sup> Melayu yang suka menjauhkan diri dari mesharakat kampong, kerana pada fikiran mereka bahawa berchampor dengan orang kampong dan menyertai mesharakat mereka itu akan menjadikan penuntut<sup>2</sup> itu keluar dari 'tamaddun' konon! Bukan-kah lebeh baik kalau penuntut<sup>2</sup> Melayu yang ada mempunyai pelajaran<sup>2</sup> tinggi itu menolong dan menaborkan pelajaran yang di-punyai-nya itu kepada bangsa-nya yang tinggal di-kampong<sup>2</sup>? Kebudayaan barat atau kebudayaan chelop itu tidak akan sesuai dengan kebudayaan timor. Insaf-lah penuntut<sup>2</sup>!

Derma Pelajaran. Perasaan ta'puas hati di-kalangan penuntut<sup>2</sup> berkenaan dengan Derma Pelajaran (Scholarship), kerap di-dapati. Perasaan ta'puas hati ini sabenar-nya ada-lah terbit dari chara<sup>2</sup> atau peraturan pilehan yang ta'betol di-jalankan oleh Lembaga Pilehan itu. Zaman pembanguan ada-lah berkehendakan kejujoran dan sudah misti-nya chara<sup>2</sup> pilehan itu di-jalankan dengan peraturan yang saksama jua hendak-nya. Selagi orang Melayu mementingkan diri sendiri dan selagi orang Melayu juga tidak mempunyai keperchayaan kepada kelayakan sa-sa-orang maka selama itu-lah kita tinggal dan hidup layu.

#### BINGKISAN AKHIR.....UNTOK MERIAM....:

Meriam,

Sesampai-nya suratku ini tentu-lah memeranjatkan kau kerana dari samenjak ku-ketahui kau telah bertunang ta'tergamak tanganku menyurat apa² untok kau. Memang aku ta'tergamak......sunggoh pun kemahuanku kuat menekan, tetapi semangatku sentiasa berlawan. Ta'lama lagi kau akan berkawin......berma'ana chantuman jiwaku terhadap kau dan begitu juga kau terhadapku, telah putus dengan sendiri-nya.

Oleh: A2

Kugagahi hatiku, ku-ambil pina, ku-menong sejurus, dan simpulan-nya ku-tulis surat ini untok membisekan kata hatiku ka-telinga kechil jiwa kau Meriam! Ta'dapat ku-gambarkan di-kertas ini bagaimana sayu, hiba dan rosak-nya hatiku, kalau remok-nya kacha di-batu kau sifatkan remok-nya hatiku, maka itu belum menjadi imbangan padaku.....dengan lain² sebutan, hatiku telah hanchor remok bersepai dan membawa fikiranku menjadi sebu senak. Bila ku-ingatkan segala janji² dan sumpah yang kau keluarkan dari bibir nipiskau yang ku-pandang chomel manis dahulu, makin membawa diriku bertambah khial dan gelap dunia ini pada pemandangan-ku. Kau telah mungkir janji, kata kau tidak di-kota, Meriam!! Dulu-nya ku-sangka bahawa kau sabenar² manusia yang mempunyai rasa kemanusiaan yang harus ku-perchayakan, tetapi.....aku tersalah duga. Bengini kah gaya atau kaedah segala Meriam yang lain di-dunia ini? Ah, aku khuatir!!!

Macham mana pun, perbuatan kau tidak menjadi keheranan kepadaku lagi dan tidak seharus-nya aku mengambil tindakan apa<sup>2</sup> terhadap kau, tetapi, sabelum putus segala sesuatu-nya, ini-lah aku mengambil kesempatan memberi bingkisan sebagai lambaran akhir untok kau supaya dapat aku menguchapkan kepada kau dengan uchapan, "Selamat Pengantin Baru."

Kau harus ta'dapat ku-salahkan bulat² kerana ku-tahu bahawa family kau ialah orang yang berada lagi ternama; kau di-puja dan di-tatang saperti minyak yang penoh dan sentiasa dalam alunan ombak kemewahan, pada hal aku hanya sa-orang anak angkat dan ayah angkatku pula hanya orang serdahana sahaja. Munkin ayah kau berfikir bahawa aku tidak punya kesanggopan untok memelihara, menyelenggara dan memenohi segala sesuatu-nya kehendak kau jika aku menjadi suami kau. Ah! Apa—boleh buat aku bernasib batu—tenggelam-lah dia. Memang begitu-lah ke-adaan dunia yang penoh dengan segala kepelsuan ini. Aku maseh ingat, pada masa aku di-sekolah lagi, samenjak aku di-ugut oleh abangkau Inspector Ahmad, kerana berchakap dengan kau di-Kampong Baharu, dan berikut dengan peristiwa itu, kau di-berhentikan dari Sekolah Bukit Bintang dan terus di-hantar ka-Melaka, belajar di-Sekolah Convent, itu semua ada-lah helah untok menjauhkan kau dariku. Ibu bapa kau telah menganggapi aku saperti sa-ekor anjing yang bertelinga busok, tetapi segala anggapan itu tidak ku-pedulikan kerana kau maseh jujor kepadaku tatkala itu.

Tetapi kini....., kini samenjak aku berhenti dari University, ta'pernah kuterima satu surat pun dari kau lagi. Ia! Barangkali itu-lah mula-nya perasaan kau berubah dan membawa binting chita² kau ruboh. Sabenar-nya aku telah bertekun bersunggoh² berharap mendapat kejayaan.....kejayaan untok aku dan kau di-belakang hari, tetapi malang, usaha dan tenagaku tidak berhasil, bintang ku gelap; aku telah jatoh dan jatoh di-timpa tangga pula. Kan itu sebab-nya kau mengubah haluan, Meriam? Sebalek-nya ia atau tidak mustahil dapat ku-teka. Apa yang dapat ku-sebutkan kini ia-lah, bunga yang ku-puja² dari putek-nya dahulu telah kembang mekar tetapi sayang, bunga itu mengandongi madu berachun! Kerana abangku orang berpangkat lagi terkenal di-hari ini telah dapat mempengarohi dan akan berjaya menyuntingi kau. Sebalek-nya, kau juga memandang pangkat, memandang harta dan .....dan.....Ku-sangka panas sahingga petang tetapi rupa-nya hujan di-tengah hari!! Sekali pun surat ini ku-perchaya akan jatoh ka-tangan abangku, namum hatiku tidak akan berasa bimbang, tidak kah ia tahu bahawa aku chintakan kau dan kau membalas chintaku dahulu?

Buat penutop suratku ini, ku-berharap dan berdo'a supaya bahtera kehidupan kau berdua selamat sampai menuju ka-pantai bahagia jua hendak-nya. Lupakan-lah aku. Memang harus dapat kau-melupakan aku buat selama lama-nya, Meriam! Tetapi aku, ta'kan dapat melupakan segala janji² dan segala peristiwa yang lalu, semua-nya itu harus menjadi peduman dan membuat aku tambah sedar. Ia, aku sedar bahawa begitu-lah mulut dan jiwa kebanyakan gadis² zaman sekarang!!

#### SEDAR KAH KAU....?

(Oleh: ABDUL RAHMAN B. ISMAIL)

Lepas sanari ka-sanari
Hari berganti hariberganti minggu
Hilang bulan, berganti bulan,
Lenyap tahun, timbul tahun
Kechil menjadi besar dan bertukar di-wasa,
Beberapa perubahan telah berlalu dan terus berlalu,
Perubahan diriperubahan 'alam,
Dan perubahan segala sa-suatu-nya ;
Memang berubah dan tetap berubah mengikut zaman!!
Tetapita'semua orang pestidan ta'semua orang sedar
Masa yang lampau hilang lenyap di-telan buana,
Ta' di-nampak lagita'nampak kerana khial
Tetapi?
Aku, kau, dia, diadiadan dia?
Di-dusun, di-desadan di-bandar
PeladangPetanidan Buruh
Dandan ??
Anak siapa-kah mereka itu ?Anak kau ?
Bukan!!! Mereka bukan anak kau dan bukan anak akutetapi?
Tetapikan-kah mereka anak-anak negara???
Anak yang sa-sa-orang-nya mempunyai kegunaan
Mempunyai chita <sup>2</sup> mempunyai hak
Dan mempunyai tenaga,
Tenaga berkhidmatberkhidmat untok negara!!
Tetapitetapi mereka tidak punya modal
Tidak punya pengtahuan dan tidak punya pangkat
Ketiadaan itu menyebabkan manusia berkasta-kasta?
Berkelas-kelasdan bertinggi rendah??
Aneh sekali keadaan dunia bukan???
Ah!! Ta' guna kau mempunyai kekayaan,
PangkatHartadan kemewahan bersa-orangan!!
Kan itu kemegahan palsu?
Hanya perkhidmatan-mu yang sedang di-nanti2,
Perkhidmatan untok membela
Membela bangsa dan negara
Itu-lah kemegahan tulin yang berkekalan,
Di-kenang sebagai kestaria,
Menjadi pujaan manusiapesti di-puja
Selama sinar suria memanchar di-'alam maya!!!

#### CHELOTEH PAK MUSA.

Ha! Ha!! Haa!!! Selamat bertemu lagi, selamat sejahtera, dan selamat maju jaya aku uchapkan kepada engkau semua tua dan muda. Aku harap engkau rajin dan usaha lebeh² lagi dari yang sudah² supaya lekas terchapai segala maksud dan chita² engkau.

\* \* \* \* \*

Ah....., aku hampir lupa maalum-lah banyak kerja aku, rupa-nya ini ia-lah hari ulang tahun yang kedua terbit-nya, "Matahari Serdang," dan dengan tergochoh gochoh aku ta'lengah mengirim kawat kepada Tuan Pengarang kerana tanda aku kaseh pada Matahari Serdang. Kawat aku itu berbunyi saperti di-bawah:-

Selamat terbit Matahari Serdang. Chahayamu terang benderang, Keluar ka-medan untok berjuang, Membela mesharakat sedikit ta'bimbang. Matahari menyusor ka-negeri dan desa, Mengunjongi perengkat tua dan muda, Berkhidmat kerana bumiputera. Itu-lah chogan Matahari membawa. Tiap<sup>2</sup> kali Matahari menjelema, Berbagai fikiran di-bawa bersama, Untok faedah mesharakat semua. Itu-lah bakti yang maha berguna. Hidup! Hidup! Selamat Hidup!! Hidupmu biar zaman berzaman, Hak sendiri hendak-lah rebut. Supaya terlepas dari chengkaman! Berdekah dekah aku ketawa. Menandakan perasaan kaseh mesera, Semasa hidup biar berjasa, Sebagai kenangan engkau semua.

Aku nampak susah sangat engkau mendapat kejayaan, dari itu terima-lah petua aku ini dan amalkan sa-tiap masa, jangan di-lupakan, sebab petua aku ini ta'dapat di-beli di-tepi jalan walau dengan Black Market sekalipun, dan harga-nya sangat mahal. Petua aku itu ia-lah begini:-

"Bertanya biar tahu, Berjalan biar sampai, Memechahkan ruyong mahu-kan sagu-nya, dan Belajar biar pandai."

Sekian-lah sahaja petua aku itu, engkau terima-lah dan pakai-lah dia barang kemana engkau pergi neschaya segala maksud engkau tentu berjaya.

Engkau semua sudah besar panjang, pelajaran tinggi dan yang ada nampak aku sudah pula bermisai berjambang ta'ubah macham 'Pak Bai' menjual roti, tetapi kelakuan engkau semua ta'senonoh. Kalau dunia ini bertangkai sudah tentu engkau terbalekan kebawah, ai sei men!.....bukan main nampak-nya!! Ingat baik², turutkan mata buta padah-nya, turutkan suka padah-nya duka dan jika turutkan nafsu padah-nya lesu. Aku sangat benchi menengok perangai engkau, sebab itu-lah aku selalu berleter walaupun engkau benchi mendengar-nya. Tetapi kalau engkau ta'tahan mendengar aku, engkau pileh-lah salah satu daripada dua jalan ini: yang pertama engkau buangkan kelakuan engkau yang burok², atau yang kedua-nya, engkau keluar dari rumah tangga aku, masok-lah engkau berchampor dengan kumpulan kutu² embun itu dan jangan engkau balek² lagi, kalau tidak terpaksa-lah aku berleter juga dan pasang-lah telinga engkau baik².

\* \* \* \* \*

Sedikit hari dulu heboh di-antara engkau semua mengaku diri engkau bijak pandai, konon ta'konon hendak mengubah nama mujallah "Matahari Serdang" kepada nama yang lain, tetapi ta'sunggoh, chadangan yang keluar daripada kepala batu engkau itu semua-nya majal. Aku ta'bersetuju sama sekali dengan fikiran engkau yang karut marut itu apa lagi hendak menyertai-nya. Choba Sidang Pengarang dan engkau semua halusi baik² tafsir aku yang paling rengkas berkenaan dengan nama 'Matahari Serdang' itu.

'Matahari' ia-lah satu alam yang di-jadikan Tuhan untok menerangi alam jagat, pada pengtahuan ilmu jiwa lebeh<sup>2</sup> lagi dalam ilmu pertanian, 'matahari' ada-lah sangat mustahak kerana dengan ketiadaan-nya menyebabkan kesehatan ta'munkin sempurna, pertanian ta'munkin hidup, dan segala hidup hidupan ta'munkin biak, harus engkau semua pun ta'dapat mengechap segala sesuatu-nya naemat di-dunia raya ini.

'Serdang' itu pula ia-lah sempena tempat dzahir-nya mujallah ini. Serdang itu kalau engkau ta'tahu ia-lah sajenis pokok yang chantek di-jadikan perhiasan taman, daun-nya pernah di-buat atap oleh datok nenek moyang engkau dahulu kala. Dengan keterangan aku yang serba rengkas ini aku harap engkau semua mengerti dan chukop faham mengapa aku kuat mempertahankan nama mujallah ini biar-lah saperti dahulu juga yaitu 'Matahari Serdang atau Serdang Sun.' Aku gentar jika nama mujallah ini selalu di-ubah maka para pembacha-nya tentu berkata bahawa perdirian otak Sidang Pengarang serta semua ahli² yang berkenaan dengan-nya ta'tetap atau mereng, tatkala itu keperchayaan orang ramai kepada kita harus-lah berbelah belah dan tentu engkau semua susah mendapat sokongan atau kerjasama dari mereka.

\* \* \* \* \*

Tengah aku termenong, fikiran aku melayang jauh.....aku pun tersenyum, dengan ta'ku pestikan rupa-nya Mak Chik engkau sedang melihatkan aku dan sabentar itu juga ia pun berkata, "Ini ta'lain lagi yang awak senyumkan itu ia-lah teringatkan chinta lawar awak agak-nya." Bukan, tidak begitu, awak ni suka membuat serkap jarang, kata aku. "Habis apa yang awak senyumkan kalau tidak ada satu

satu perkara yang menggelikan hati ?" Tanya Mak Chik engkau. Aku pun bercherita-lah kepada-nya sebab menyebab yang membuat aku tersenyum itu, konon-nya aku teringat akan cherita Abu Nawas mempersembahkan beberapa ekor lembu pandai berkata kata kepada Sultan Harun-Al-Rashid. "Ah, ta'lah menjadi geli hati kami cherita yang semacham itu," sampok Mak Chik engkau. Aku ta'kuasa berbual panjang lagi lalu aku pun berkata, "Kalau Sultan Harun-Al-Rashid maseh hidup, sudah tentu aku akan menerima hadiah yang mahal2 daripada-nya kerana Abu Nawas dulu hanya mempersembahkan Lembu pandai berkata kata sahaja pun dapat hadiah yang mahal, tetapi aku, lebeh daripada itu dapat aku persembahkan. Apa tidak-nya? Aku boleh mempersembahkan Anjing pandai berkata kata, Kuching pandai berkata<sup>2</sup> Kambing pandai berkata kata, Kuda pandai berkata<sup>2</sup> dan hinggakan Katak, Monyet pandai berkata kata pun boleh aku bawa kehadapan-nya. Haiwan yang pandai berkata kata ini semua-nya aku dapati. Choba fikir pantang sahaja nampak perempuan sama ada perempuan bangsa sendiri atau bangsa asing tatkala itu pekak-lah telinga aku mendengar suara engkau, ada yang menyalak, ada yang mengiau, ada yang mengembek dan ada pula yang terlompat2 macham kuda dan tergarok garok macham monyek dapat belachan. Bukan-kah menasabah benar aku bawakan orang yang berkelakuan saperti yang aku sebutkan itu kepada Sultan Harun-Al-Rashid?" Wah, bila Mak Chik engkau mendengar cherita aku itu dia pun tertawa gelak. "Awak ini ada2 saja modal membuat orang ketawa," kata-nya.

Sekarang apa fikir engkau semua, tidak-kah patut lagi engkau mengubah perangai yang tidak bersofan itu? Kalau engkau lakunkan juga aku takut engkau semua akan di-chap oleh orang ramai sebagai, 'Penjarah' jadi busok-lah nama baik engkau, lebeh lagi nama baik aku dan nama Maktab aku pun akan tersentoh juga. Ingat-lah kata² aku, "Alah bisa tegal biasa dan sebab sa-ekor kerbau membawa lumpur semua-nya terpalit." Baiki-lah tengkah laku engkau dengan segera, kerana aku sangat benchi dan menyampah betol melihat-nya!!!

nt nt nt nt

Selama hari ini aku ta'tahu rupa-nya ada di-antara kumpolan engkau yang terpaksa aku beri gelaran, "Buaya" kepada-nya, kerana sudah kutilek dengan chukop halus tiada-lah yang lain di-antara engkau yang layak menerima gelaran itu. Sebab pun aku kurniakan gelaran itu ia-lah mengingatkan jasa dan kebaktian-nya yang luar biasa, engkau tahu-lah tabiat dan rasmi buaya. Satu malam aku sangat gerun dan meremang bulu tengkok aku bila aku nampak buaya itu telah menggonggong saekor bangkai, nasib baik buaya itu ta'nampakan aku dan aku pun sengaja melindongkan diri kerana aku hendak melihat dengan jelas bagaimana buaya itu hendak menelan bangkai yang begitu punya besar. Sabenar-nya aku ta'dapat mengenal apakah bangkai yang di-jadikan mangsa-nya itu, hendak aku katakan bangkai gajah ta'nampak belalai-nya, dan hendak aku katakan bangkai berok ta'nampak ekor-nya, jadi aku mendiamkan diri saja. Amboi!! Bukan kepalang ganas buaya itu, terok sangat bangkai itu di-kerjakan-nya, di-sungkor, di-mamah, di-balek, di-banting, begituseterus-nya.....aku agak buaya itu sudah kebulor! Itu pun aku ta'heran ; yang aneh-nya pula begini, "Pada pagi esok-nya, aku tengok berkechopong mulut engkau mendengarkan buaya itu mencheritakan yang dia mendapat mangsa." Dah betul-lah, agak-nya selama ini dia belum pernah dapat makanan yang begitu enak?

Aku nasehatkan engkau semua orang muda<sup>2</sup> jangan sekali-kali engkau meniru kelakuan dan perbuatan rakan engkau itu kerana dia sudah-ku kurniakan 'Bintang Buaya,. Tetapi kalau engkau takut kena kuman buaya itu aku pun boleh berikhtiar membuat ramuan untok menghalau-nya, ramuan itu hendak-lah di-bachakan serapahnya sekali. Serapah buaya telah aku tuntut daripada guru aku dahulu bunyi-nya begini:

"Heei buaya, aku tahu asal tempat dudok engkau dalam lubok lumpur chair, di-situ engkau datang kesitu engkau balek, benamkan-lah muka engkau jangan timbul², kalau engkau timbul aku tembak dengan peluru tembaga; jauh engkau pergi jangan merosak binasakan anak² chuchu aku semua."

\* \* \* \* \*

\* \* \* \* \*

Aku harap kali ini Tuan Pengarang dan ahli<sup>2</sup>-nya serta jawatan kuasa mujallah ini lebeh chekap daripada yang telah sudah supaya sempurna dan rata<sup>2</sup> menaborkan mujallah yang akan dzahir ini. Aku telah terima aduan daripada luar ada yang mengatakan ta'usahkan menerima, memandang pun tidak akan rupa mujallah yang pertama dahulu itu. Aku heran, kenapa-kah jadi begitu? Siapa-kah yang bertanggong jawab dalam pembahagian mujallah itu?

[Aduan yang di-terima oleh Pak Musa dan di-sampaikan kepada kita ada-lah di-uchap terima kaseh, tetapi aduan itu tidak-lah dapat di-jadikan asas untok kita mengambil tindakan... Bukan-kah lebeh baik ahli² itu berhubong dengan kita daripada bersungat di-belakang untok mendapatkan mujallah-nya? Dengan amat dukachita kita maalumkan bahawa mujallah ini ta'dapat di-beri dengan perchuma sahaja, sedangkan kita minta mereka memberi alamat di-mana mereka berada tidak kami terima, apa lagi hendak memberi kerjasama sechara sedikit sebanyak-nya... Ahli² yang memberi derma kepada mujallah ini sama ada yang berupa wang atau karangan, memang ta'kami lupakan! Pengarang.]

Masa dua hari aku di-Titi Serong, Perak, aku rasa molek juga di-chatitkan sepatah dua perkataan untok kenang kenangan aku melawat ka-situ. Hari aku tiba itu aku tengok hinggakan daun² kelapa semua-nya melambai-lambai menyambut kedatangan aku di-sertai pula dengan angin yang sepoi² bahasa. Pemandangan sunggoh indah, di-mana pun aku arahkan teropong aku ternampak ta'lain daripada pokok² padi yang menghijau subor hidup-nya. Ah.....sunggoh subor tanah tempat tumpah darahku, "Malaya" kata hati kechilku. Tetapi,.....tetapi hatiku sedeh dan bertambah sedeh, dengan ta'semena-mena ayer mataku titek berlinang apabila aku dapati ibu bapa dan saudara² aku di-situ selama ini hanya-lah menggunakan ayer parit yang hitam legam dan berkarat. Di-situ mereka membuang najis, di-situ dia mandi, di-situ juga tempat dia membasoh kain baju dan ayer itu-lah juga untok makan minum-nya. Tidak-lah aku heran, aku tengok kesehatan ibu bapa dan saudara mara aku di-situ ta'berapa memuaskan hati.

Telah bertahun² lama-nya tempat itu sudah terbuka, pendudok-nya menjalankan perusahaan yang luas tentang padi dan begitu juga tiap² tahun mereka membayar chukai tanah-nya pada Kerajaan, beratus ratus gantang padi mereka telah di-ambil oleh Jabatan Igama sebagai zakat, tetapi kehidupan atau taraf hidup saudara mara aku di-situ maseh jauh daripada yang samisti-nya. Bekalan ayer atau pipe tidak diterima oleh mereka apa lagi bekalan lampu (electricity).

Aku berseru kepada Penghulu, Ketua<sup>2</sup> Kampong dan sekalian Penganjor<sup>2</sup> disitu supaya bersatu padu dan bekerja dengan saberapa chepat untok mendesak dan merayu kepada pehak yang bertanggong jawab untok mendapatkan bekalan itu. Aku perchaya bagaimana kata datok ninek aku dahulu, "Kalau di-ibaratkan Kerajaan itu sebagai sa-orang ibu, masakan dia hendak menyusukan anak-nya, selagi anak itu tidak meratap." Berserah bulat<sup>2</sup> kepada Ilahi dengan tidak berikhtiar hendak-lah di-jauh-kan!! Jangan putus harap, jangan mudah mundor, kalau sekali ta'berhasil, choba dan choba lagi sahingga berhasil. Aku do'akan pendudok<sup>2</sup> di-Titi Serong Selamat Berjaya.

\* \* \* \* \*

Masa engkau dan aku berada di-Tanjong (Pulau adek kelapa), aku telah sempat melawat Kebun Perchubaan Tanaman, Ayer Itam. Aku pandang engkau semua ta'kering gusi dek ketawa kerana gelihati mendengarkan sharahan kedua-dua pakar tanaman bangsa engkau yang bernama "Mr. MaC dan Mr. Buck". Aku tahu sebab engkau semua ketawa ia-lah kerana kedua dua beliau itu pandai menjalankan roll-nya dalam ilmu jenaka, dan sebab itu aku fikir patut bahawa tiap² Pegawai Pertanian elok berbuat demikian supaya mudah-lah mereka mesera dengan orang² kampong dan begitu juga sabalek-nya, orang² kampong pun tentu tidak segan² hendak bertanya soal yang bersabit dengan perkara tanam-tanaman. Shabas Mr. MaC dan Mr. Buck!!! Selama ini aku fikir hanya Aman Bilon sahaja yang pandai berjenaka—membuat orang ketawa....rupa-nya Mr. MaC dan Mr. Buck kalau tidak melebehi dari Aman Bilon, barangkali dekat²-lah sa-taraf dengan-nya. Dari itu aku shurkan patut benar pehak Radio Malaya, Pulau Pinang, mempersilakan kedua dua beliau itu ka-Studio-nya untok

berjenaka, memberi hiburan kepada suku sakat aku di-Pulau Pinang khas-nya dan Tanah Melayu 'am-nya. Aku misti angkat topi dan beri hurmat kepada kedua dua Mr. MaC dan Mr. Buck yang berjasa dan bersusah payah menyambut kedatangan kami ka-tempat-nya, dengan sechara hati ka-hati aku uchapkan ribuan Terima Kaseh jua!

\* \* \* \* \*

Wah, merah padam aku tengok muka engkau samenjak kena leter; memang aku nampak dan aku tahu kalau engkau boleh menjadi sa-ekor Singa sudah tentu engkau patahkan tengkok aku. Yang betul-nya ta'usah-lah engkau hendak memukul atau membunoh aku lebeh baik engkau mulai dari sekarang melengkapi diri engkau dengan tingkah laku yang lemah lembut, bertutor yang baik dan beradab, jadikan diri engkau sabenar² 'anak orang tua-tua.' Engkau semua akan jadi pemandu atau pengajar kaum bangsa di-cherok rantau negeri engkau sendiri yang tengah berkehendakan bantuan dan asuhan engkau, tetapi kalau tidak engkau betolkan perdirian engkau sendiri lebeh dulu, neschaya payah engkau hendak menchapai kemajuan dan sebalek-nya engkau akan di-anggap sebagai 'ketam hendak mengajar anak-nya berjalan betol'. Buat penutop-nya hendak-lah engkau fahamkan benar² apa maksud-nya cheloteh aku ini dan aku akhiri pula dengan serangkap pantun mudah mudahan menjadikan engkau hidup berbahgia di-hari depan kelak:-

Che' Mat menjual duku,
Dari Peringgit ka-Bandar Hulu,
Dengan sebab tingkah laku,
Harga sa-ringgit tinggal suku.

Selamat tinggal dan Selamat berjumpa lagi.

PAK MUSA.

#### KATA2 HIKMAT.

- 1. Orang yang mempengarohi sa-sa-orang supaya mengikut ka-jalan yang sesat itu ada-lah rachun mesharakat; dan orang yang mudah terpengaroh itu pula ia-lah sampah mesharakat.
- 2. Orang yang suka memechat perbuatan orang lain tetapi ta'suka di-pechat atas perbuatan-nya sendiri ada-lah musoh mesharakat.
- 3. Orang yang marah bila di-tegor kesalahan-nya tetapi gumbira bila dipuji, ada-lah manusia yang paling hina di-muka bumi ini.
- 4. Sejahat-jahat gila manusia ia-lah orang yang 'gila pangkat.'

ARBI.

#### AZIMAT DIRI.

- S Sabenar² perkhidmatan mahu lah di-dasarkan kepada TUHAN dan TANAH AYER sendiri,
- E Elakkan segala perkara yang boleh merosak dan jadi mudzarat diri dan family,
- R Razki yang murah, ma'amur dan halal itu bergantong pada kerajinan, kesabaran, kebenaran, amanah dan ta'at setia diri sendiri,
- D Do'a-do'a yang di-pinta tiap2 lepas sembahayang itu ALLAH akan chuchori,
- A Aman damai serta kesehatan itu-lah yang selalu di-kehendaki,
- N Neraka ada-lah menjadi tempat orang yang melanggar sebarang larangan dan kebenchian TUHAN,
- G Gunakan-lah ilmu-ilmu dan kewajipan-nya dengan fikiran dan tenaga yang penoh.
- S Sudah barang tentu kelak-nya menjadi menafa'at diri dan negeri,
- U Untok menchapai Kemerdekaan Berkerajaan Sendiri,
- N Nasehat2 ini harap jangan di-lupakan sekali-kali!

MD. NOOR HAMZAH, J.P., Bekas Pensharah, Maktab Pertanian, Malaya, (1932—1945.)

#### MENGINGATKAN YANG LUPA.....

[Di-bawah ini kita petek satu salinan surat yang kita terima daripada Yang Berhurmat Inche' Mohamed Noor bin Hamzah, J.P., Bekas Pensharah, Maktab Pertanian, Malaya, untok perhatian murid² tua sa-umum-nya... Yang Berhurmat itu adalah sa-orang Ahli Meshuarat Negeri bagi Pulau Pinang dan juga menjadi salah sa-orang 'orang kuat' dalam Majlis Bandaran. Alamat surat kepada beliau ia-lah: No. 14, Cross Street, Bukit Mertajam, Province Wellesley. Pengarang.]

Che' ARBI,

Di-antara beratus ratus murid Che'gu dari tahun 1932 hingga 1945, dua tiga orang sahaja, itu pun anak² Melayu sahaja yang maseh ingatkan Che'gu dan disifatkan-nya Che'gu ini sebagai sa-orang guru-nya DUNIA-WAL-AKHIRAH, yang lain lain itu masa dahulu-nya telah menanam tebu di-bibir. Manakala mereka telah termakan manisan-nya (mendapat Diploma atau Sijil) ternyata-lah saperti pepatah orang tua² ia-itu, "MANISAN DI-TELAN HAMPAS DI-BUANG."

Lain dari tiga orang murid yang tersebut itu, tidak pun sa-orang yang ingatkan guru-nya dengan jalan mengirim CARD HARI RAYA, sa-tahun sekali atau berita2 yang mengenai diri-nya, baik pun yang dudok jauh atau pun dekat. Apabila terjumpa, dengan tidak di-sangka2 oleh Che'gu, pura2 mereka membuat ta'nampak terutama sekali manakala ia-nya sudah pandai membawa motor-car, pada hal Che'gu kenal murid itu! Dengan keadaan dan pergerakan orang muda<sup>2</sup> sekarang ini, Che'gu telah dan maseh perhati dengan mendapat lain<sup>2</sup> keterangan ternyata-lah yaitu jika sekira-nya Tanah Melayu ini di-beri berkerajaan sendiri, munkin perselisehan dan pergadohan se-sama sendiri akan berlaku. Macham mana pun Che'gu berdo'a kepada ALLAH supaya di-lanjutkan umor Che'gu kerana hendak melihat bagaimana kah akan terchapai Kemerdahekaan yang sangat di-chintakan itu!!

#### TAHUN PERJODOHAN?

Dengan rasa bangga dan penoh gumbira kita chatitkan berita perkahwinan rakan² kita yang tersebut di-bawah ini:-

- 1. Inche' Wan Nik bin Ismail (A.R.D.O. in-Training, 1952/55) dengan Che' Mariam binti Haji Abdullah, di-K. Trengganu, pada 8-5-1953. Sekalipun sa-orang di-timor dan sa-orang di-barat....." Chinta suchi berpadu kukoh!"
- 2. Inche' Zainuddin bin Abu Bakar (Major Scholar, Penang, 1950/53) dengan Che' Fatimah binti Saad, berlansong di-Pulau Pinang, pada 5.7.1953. Inche' Zainuddin lebeh terkenal dengan nama 'Pak Wan' oleh rakan2-nya dimaktab ini. Apa macham Pa'Wan, angan² hendak kawin dengan sa-orang 'Janda Kaya' ta'berhasil?.
- 3. Inche' Mohd. Ishak bin Ahmad (Major Scholar, N. Sembilan, 1949/52) dengan Che' Zainun binti Sulaiman, di-K. Pilah, pada 2.8.1953. Kalau Che' Zainun ta'menjemput ka-tanah ta'bisa bersanding bukan? Ah...... bagi pinang di-belah dua!'
- 4. Inche' Yahil bin Mohamed (R.R.I. Scholar, Johore, 1951/54) dengan Che' Asmah binti Ismail, di-Segamat, pada 13.8.1953. Ya, kita bersetuju dengan perdirian Inche' Yahil, "sayangkan isteri tinggal tinggalkan.....," tetapi ?..... Tetapi bila gelora jiwa naik membumbong tinggi dan ta'dapat di-kawal lagi, tempat jauh di-pandang dekat, motor cycle-nya yang berlari selaju 80 m.p.h. saperti terbang itu maseh di-kata-nya lambat!!

Kita do'akan rakan² ini, "Sehat 'afiat, aman damai dan selamat jaya dalam mengendalikan gerbang perkongsian hidup berbahgia jua hendak-nya!"

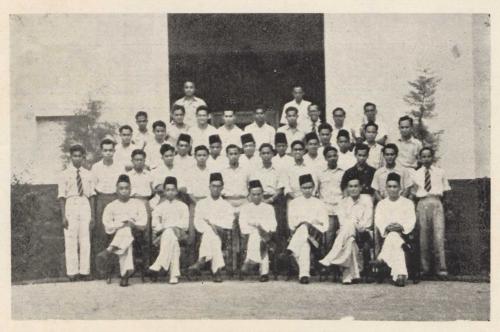
ARBI.



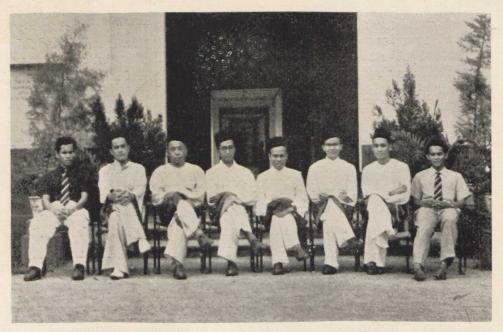
(Inche' Wan Nik & Che' Mariam)



(Inche' Yahil & Che' Asmah.)



AHLI<sup>2</sup> PERSATUAN MUSLIM MAKTAB PERTANIAN, MALAYA.



#### PEGAWAI DAN AHLI JAWATAN KUASA, PERSATUAN MUSLIM MAKTAB PERTANIAN, MALAYA.

Kiri ka-kanan: Che' Zainal Abidin b Maamor (Bendahari), Raja Ahmad Tajuddin (Pemereksa Kira²), Che' Mohd. Amin b To' Muda Hassan (J.K.), Che' Yahaya b Din (Naib Yang di-Pertua), Che' Abd. Rahman b Ismail (Yang di-Pertua), Che' Wan Nik b Ismail (Setia Usaha, Che' Arshad b Ayob (Setia Usaha Rencham), Che' Yahil b Mohamed (J.K.)

Tiada hadzir: Che' Othman b Hashim (Pemereksa Kira²) dan Che' Yahaya b Hashim (Penjaga Kutub Khanah)

# PENYATA PERSATUAN MUSLIM MAKTAB PERTANIAN 1953/54.

Ahli. Jumlah ahli persatuan dalam tahun ini ia-lah seramai 46 orang berbanding dengan 26 orang pada tahun yang lalu. Bilangan ini ada-lah bertambah kerana tiba-nya Penuntut<sup>2</sup> Pelajaran Satahun yang telah di-mulakan semula dalam tahun ini.

Pegawai<sup>2</sup> dan Ahli Jawatan Kuasa. Dalam meshuarat Agong Tahunan yang telah di-adakan pada 9-7-53, telah melantek Pegawai<sup>2</sup> dan Ahli Jawatan Kuasa-nya saperti berikut:—

Setia Usaha Yang Kehurmat.... Che' Wan Nik b. Ismail.

Bendahari Yang Kehurmat ..... Che' Zainal' Abidin b. Ma'amor.

Penjaga Kutub Khanah .......Che' Yahya bin Hashim.

Che' Md. Amin b. To'Muda Hassan.

Y. M. Raja Ahmad Tajuddin.

Che' Mohamed bin Jamil dan Che' Mohd. Rashid bin Ahmad, telah di-lantek jadi Penasehat Persatuan ini.

Meshuarat: Meshuarat Jawatan Kuasa telah dapat di-jalankan sekali pada tiap<sup>2</sup> sa-bulan, dan sekali meshuarat Agong Khas telak juga di-adakan. Dalam meshuarat Agong GPMS. pada tahun yang lalu, Persatuan ini telah di-wakili oleh Che' Abdul Kadir bin Baharom dan Che' Ibrahim bin Haji Hilaludin.

Kain samping: Persatuan ini telah berjaya menempah kain samping untok ahli<sup>2</sup>-nya. Chorak dan rekaan kain itu telah di-perbuat oleh satu Jawatan Kuasa, yang mengandongi: Che' Abdul Rahman bin Ismail, Che' Abdul Kadir bin Baharom, Che' Musa bin Abu Talib, Che' Yahil bin Mohamed dan Che' Wan Nik bin Ismail.

Sambutan: Persatuan ini teleh dapat mengadakan perjumpaan, majlis sharahan dan jamuan kerana merayakan hari<sup>2</sup> yang mulia pada sisi Igama, saperti Hari Raya dan Mauludun Nabi.

Majlis bahath: Sahingga penyata ini di-tulis, majlis bahath telah dapat dijalankan sebanyak tiga kali. Kebajikan: Sekalipun bilangan ahli Persatuan ini tidak di-bilangkan ramai tetapi dengan sechara sedikit sebanyak-nya telah jua dapat menghulurkan beberapa rupa pendermaan untok kebajikan umum, saperti derma masjid², di-seluroh Tanah Melayu ini dan derma² yang mengenai dengan GPMS., serta jua memberi bantuan kepada Penuntut² Melayu yang terlantar. Dengan sechara kasar ada-lah di-taksirkan sebanyak \$80.00 telah di-pergunakan kerana kabajikan² yang tersebut.

Kutub Khanah: Perjalanan Kutub Khanah Persatuan ini boleh-lah di-katakan bertambah baik dan memuaskan hati. Derma² telah di-terima daripada ahli² yang dermawan sama ada yang berupa wang dan buku². Di-antara-nya yang berupa wang ada-lah berjumlah sebanyak \$74.00. dan sebanyak 28 buah buku telah di-terima dari orang luar, 22 buah buku telah di-dermakan oleh Pengetua Maktab Pertanian dan 29 buah buka² pelajaran telah di-dermakan oleh Setia Usaha Kebajikan GPMS., dan salebeh-nya ada-lah di-beli oleh Persatuanini. Jumlah buku² yang ada dalam Kutub Khanah sekarang ia-lah sebanyak 201 buah berbanding dengan 82 buah dalam tahun yang lalu. Sahingga penyata ini di-chatit sebanyak 24 buah piring² petinyanyi telah ada dalam simpanan. Pengetua Maktab ini telah juga mendermakan sabuah almari tempat menyimpan buku² Kutub Khanah ini.

Uchapan dari Hati ka-Hati: Kita ta'kan dapat melupakan segala sesuatu-nya atas segala pertolongan yang telah di-lancharkan oleh ahli² yang demawan kerana telah mengambil berat dan menumpukan tenaga, usaha dan semangat mereka kerana menjayakan persatuan ini. Kepada mereka kita uchapkan Ribuan Terima-Kaseh dan perkhidmatan mereka ada-lah sentiasa di-kenang bukan saja oleh ahli² persatuan ini yang ada sekarang, bahkan hingga anak chuchu kita di-masa depan. Shabas-lah orang mempunyai jiwa yang murni itu!! Di-bawah ini kita chatitkan nama² ahli yang dermawan itu buat kenangan selama-lama-nya:

- 1. Y. M. Raja Noor Aziah binti Raja Hussain, Perak.
- 2. Che' Mohamed bin Said, Malacca.
- 3. Che' Ismail bin Osman, Perak.
- 4. Tuan Syed Abdul Rahman, Raub, Pahang.
- 5. Che' Mohd. Ishak bin Ahmad, N. Sembilan.
- 6. Tuan Haji Abu bin Haji Tahir, Negeri Sembilan.
- 7. Che' Ahmad bin Salleh, Negeri Sembilan.
- 8. Che' Isa bin Ja'afar, Negeri Sembilan.
- 9. Che' Mohd. Yusoff bin Abdullah, Negeri Sembilan.
- 10. Che' Ahmad bin Haji Noor, Negeri Sembilan.
- 11. Che' A. Kadir bin Mohamad, Negeri Sembilan.
- 12. Che' Bunchit bin Ibrahim, Negeri Sembilan.
- 13. Che' Abu bin Samat, Negeri Sembilan.
- 14. Che' Salim bin Md: Akib, Kedah.

#### THE SERDANG SUN

- 15. Che' Sulaiman bin Zabidin, Pahang.
- 16. Che' Yusoff bin Zakaria, Pahang.
- 17. Che' Ahmad bin A. Ghani, Pahang.
- 18. Che' Aziz bin Pagon, Pahang.
- 19. Che' Long Bidin, Pahang.
- 20. Che' Awang Zakaria, Pahang.
- 21. Che' Ahmad bin Bakar, Pahang.
- 22. Che' A. Latiff bin Wasijan, Selangor.
- 23. Che Hussain bin Mahmud, Negeri, Sembilan.
- 24. Che' Awang Nong bin Haji Yaakub, Pahang.
- 25. Setia Usaha Kebajikan, G.P.M.S.
- 26. Principal, College of Agriculture, Malaya.
- 27. Pengurus, MAJU, R.I.D.A.
- 28. United States Information Service, Kuala Lumpur.

WAN NIK BIN ISMAIL, Setia Usaha.

#### PENGISI SUDUT:

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