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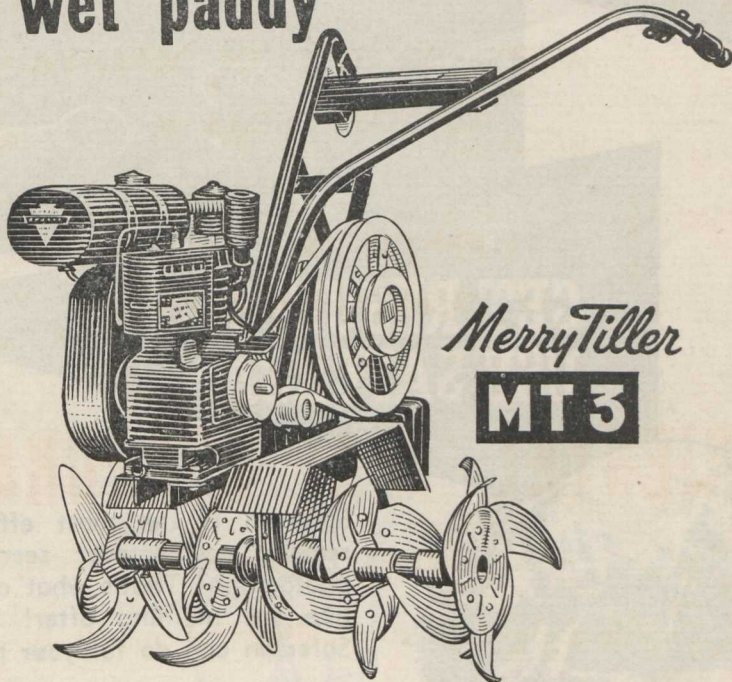
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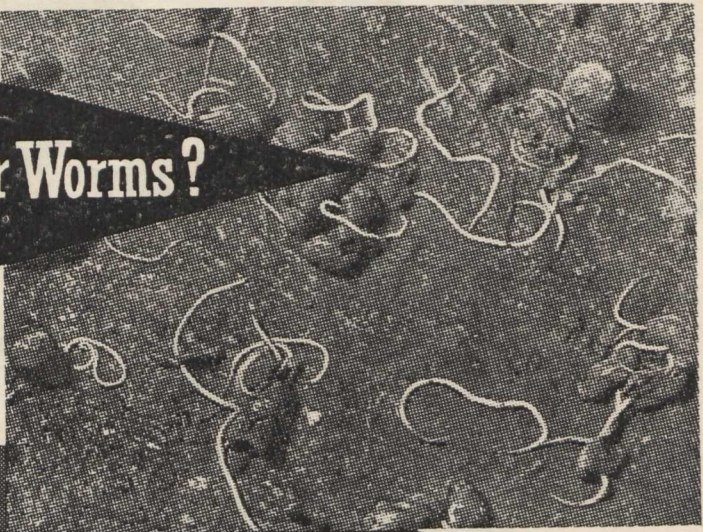
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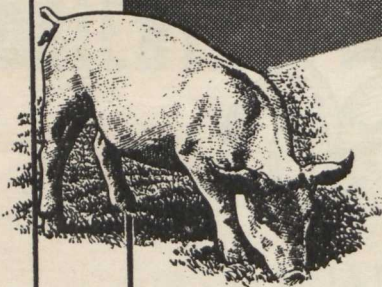
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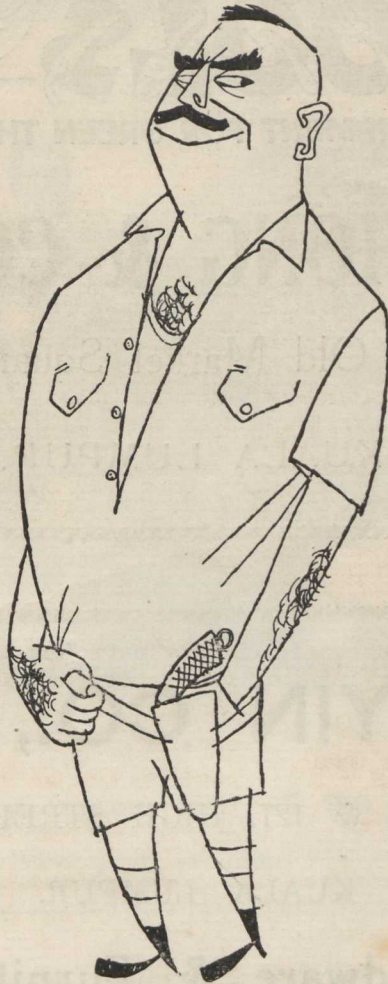
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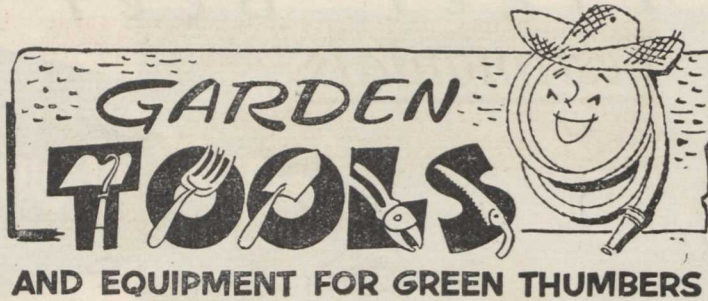
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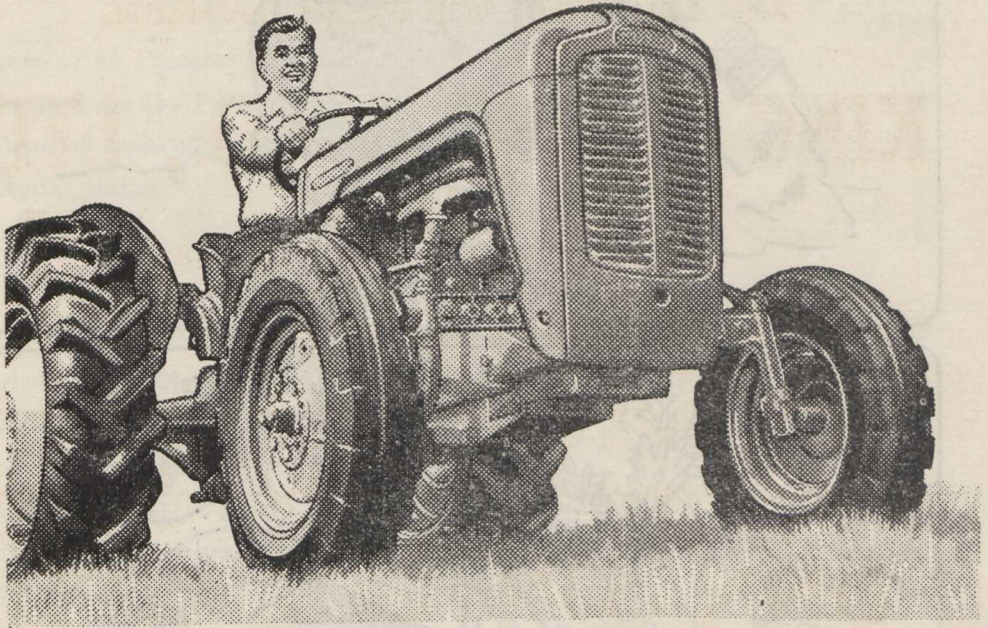
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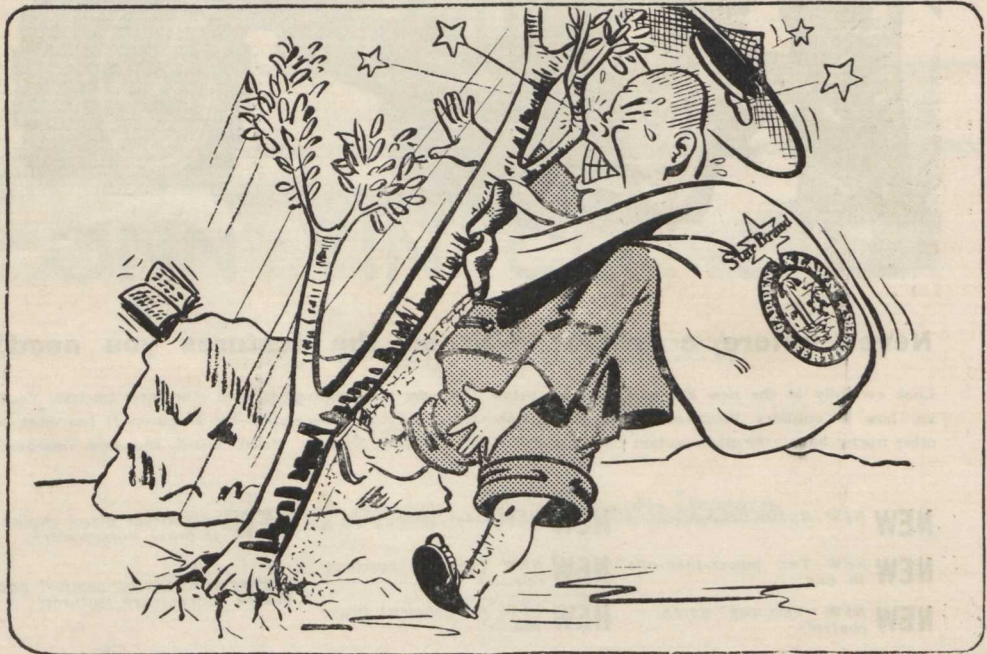
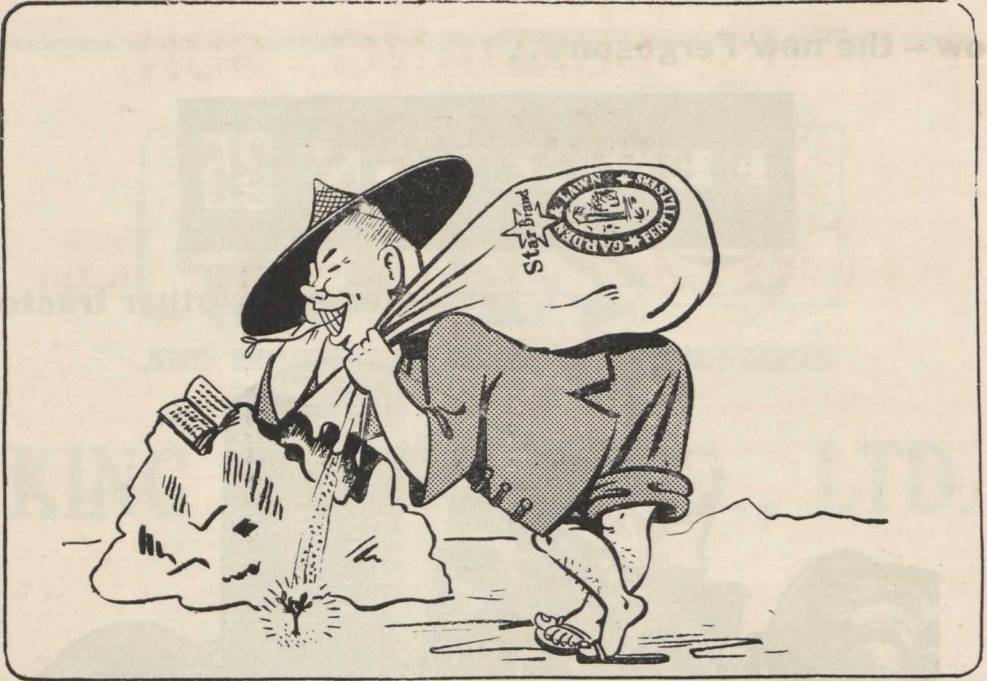
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THE SERDANG SUN MAGAZINE

OF THE
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FOREWORD

I have been asked to write the Foreword to this issue of "The Serdang Sun", in view of the fact that I expect to leave Malaya shortly, on leave prior to retirement, after 31 years service in the country.

A major source of gratification to me has been the opportunity I have had, during my tour of service as Director of Agriculture, to help bring about some improvement in the teaching facilities at the College of Agriculture.

The most important development during my period of office has been the transfer of the Certificate Course to the new Schools of Agriculture, thus freeing the College to concentrate fully on the Diploma Course. Concurrently with this has come the improvement in the syllabus for the Certificate Course, giving it a considerably more practical bias and providing a broader form of training.

Other important developments have included an increase in the number of Senior Lecturers from 2 to 4 (it is hoped soon to make it 6), the inauguration of the College farm, the improvement of the Library facilities and the use of Diploma students on work of practical value to themselves and the Department during the holidays; also more visits to places of agricultural interest made possible by the provision of a College bus.

While the future relationship between the College and the proposed Faculty of Agriculture of the University of Malaya still remains to be defined, there is no doubt that the College will play an increasingly important part in higher education in Malaya. To this end, plans have already been submitted for doubling the existing accommodation for the Diploma Course, both of hostel and teaching facilities.

Those who continue to pass through the College and its associated Schools will have a vital role to play in strengthening the basic resource of this young and newly independent nation, its agriculture.

I wish all students of the College, past present and future, every success in their lives and careers.

R. G. HEATH,
Director of Agriculture,
Federation of Malaya.

Kuala Lumpur,
March, 1958.

**MESSAGE FROM THE PRESIDENT,
THE ALUMNI ASSOCIATION, COLLEGE OF
AGRICULTURE, MALAYA**

I have great pleasure on behalf of my committee and members of the Alumni Association of the College of Agriculture in sending you greetings on the publication of the sixth post war edition of the Serdang Sun.

We, the members of the Alumni Association of the College, feel that you have named the College Magazine most appropriately—'Serdang Sun'. The very name of the magazine is enough to bring "hot" memories to the old boys of the College of their days of toil under the then merciless Serdang Sun! We often wonder if the same Serdang Sun is as merciless to the undergraduates of the College as it was to the graduates. Whichever way it is, 'Serdang Sun' binds together the undergraduates of the College and members of the Alumni Association.

With the attainment of Independence by the Federation of Malaya, the College of Agriculture takes on a more active and important aspect than hitherto known. The Independent Federation of Malaya will depend more and more on the College of Agriculture for local graduates to execute the many and varied Agricultural schemes planned by our energetic Minister of Agriculture in his drive to make the Independent Federation of Malaya self sufficient in foodstuffs. All these augur well for the undergraduates of the College of Agriculture. The future for the Agriculturally trained men is indeed full of possibilities and responsibilities.

Local planting companies are depending more and more on the graduates of the College of Agriculture to administer their rubber estates and a number of graduates of the College have proved that the College of Agriculture do turn out graduates equal to the task and responsibilities expected of them. Success in our career can only be achieved through Honesty, Hardwork and Humility. Our Prime Minister, Tengku Abdul Rahman is a living example of the 3Hs—Honesty, Hardwork and Humility.

We owe it to our Prime Minister, his cabinet ministers and our children to make Merdeka a roaring success. We will take their cue—contribution first and success will follow. Let us graduates and undergraduates join hands together and work hard to give our College of Agriculture the good name she deserves so that the Serdang Sun can shine more radiantly than ever before.

**CHEN JAN JEE,
Alumni Association,
College of Agriculture,
Malaya.**

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The Serdang Sun

No. 6

APRIL

1958

Editorial

HAVE WE EVER STOP TO PONDER IN OUR MINDS HOW A NATION WOULD STAND WITHOUT ANY SOURCE OF INCOME? Probably very few of us have, because rubber and tin have fed and clothed the masses well. But would these two commodities feed and clothe us indefinitely?

The recent widespread destruction wrought by the floods in Ceylon had seriously strained the national economy—several thousands of acres of padi land were deep underwater, irrigation reservoirs damaged and that development work in some cases may be set back by many years. Neither the sputniks nor any inter-global missile for that matter could please those homeless, distressed thousands more than nature's wonder pills—FOOD.

And yet, how many of the Malaysians to-day really give a second thought to agriculture and the farmers? Subconsciously, especially the younger generation thinks that any profession that calls for manual labour is taboo! It is not below one's dignity to be an agriculturalist, far from it. Agriculture is the world's second oldest profession and definitely much nobler than the first!

We believe that agricultural underdevelopment in our country is not due to so much the past Colonial Policy, for we had seen the development of the two plantation crops—rubber and oil palm, and, recently yet the beginning of another—cocoa, but to the negative attitude by the educated class as a whole towards agriculture. Admittedly there must be other reasons as well. The present Government has so far apparently given priority to agriculture rather more in news columns than on where it should be.

The "Serdang College", to give its popular terminology, which is the sole institution for higher studies in agricultural science and practice in Malaya and which in the past has catered for students from Borneo, Brunei, Sarawak, and Singapore receives very little attention, financial or otherwise from the responsible authorities and the public.

We, the students, do realise our responsibilities for future agricultural development in our country but with our present inadequate facilities at the college, are we then to blame if we do not rise to the occasion? The College is ill-staffed with the result that the lecturers are over taxed for time and knowledge and as we know, scientific knowledge is dynamic especially so in modern farming and agriculture. The library, both the room and the volumes in it are far from satisfactory.

However, the graduates of Serdang who had persued for higher qualifications overseas had proved their worth. We are therefore convinced that it is to the advantage of the country that with regard to all future study awards for subjects pertaining to agriculture, the Serdang graduates ought to be given preference.

Our country has at last taken her rightful seat as an Independent Nation, but independence is meaningless if we can only buy harvests of crops which are grown in other countries. For Malaya to be self-sufficient in her basic needs, foremost, the people—the illiterates and the literates—must be made to realise the importance of scientific agricultural practice and that every possible assistance rendered to the farmers—the back-bone of our essentially agricultural country.

ARTIFICIAL INSEMINATION IN ANIMAL BREEDING

By

AHMAD BASIR

Artificial insemination (A.I.) is simply the introduction of the male germ cells (Spermatozoa) into the female genitalia without actual service. Perhaps many are aware of the popular terminology “test tube babies” referring to the offspring of unwedded mothers who by circumstance or otherwise would have been deprived of motherhood. In this case, the male parental contribution to the zygote is often anonymous or only referred to as the A.I.D. (artificial insemination donor) and it was medical sciences which have perfected this technique for suitable application to human beings—biologically speaking—the highest form of animal. It was Hunter who in 1799 successfully produced a pregnancy in the human by A.I.

A.I. is an ancient knowledge. In the fourteenth century Arab horse-breeders were getting mares in foal by using semen-impregnated sponges. In 1780, an Italian scientist Spallanzani carried out an A.I. on a bitch to show that semen alone was sufficient to start normal pregnancy. After years of preliminary work the Russian scientist, Elie Ivanov set up the Central Experimental Breeding Station in Moscow for further studies in A.I. and animal breeding.

In the United Kingdom, A.I. was done on commercial scale since 1942 and by 1950 she had hundred odd centres and sub-centres serving over 60,000 farms. In the United States of America the animal breeders became intensely interested in this technique a decade or so ago though some work was already carried out before then. In Malaya, however, the first calf born of A.I. was some time in 1957, the breeding was conducted by the Veterinary Department of the Federation of Malaya.

In U.S.A. as well as in Europe A.I. is mostly used in dairy cattle but to some extent horses and sheep are also impregnated artificially. The poultry-keepers do also employ A.I. for experimental crossing purposes though comparatively little use is made of this technique with goat and swine.

COLLECTION OF SEMEN FOR A.I.

Various methods are used but these often involve the use of an artificial vagina into which the semen of an ejaculation is collected. The apparatus is placed outside the female's body, being so arranged that the male organ of the animal is inserted into the artificial vagina instead of the female genitalia, thus the full ejaculation is received without contamination from the female. The semen is then, as often practised on commercial basis, diluted with specially prepared "sperm diluent".

DILUTION

A bull can serve 30-50 cows a year under average condition. Each time he spends millions of sperms though theoretically one would be sufficient to fertilize an ovum and cause conception. Breeders have therefore corrected nature's profligacy by developing this technique and in addition to much saving of wear and tear on the male species it has also widened the range of service by the bull from 30-50 cows to 500-1000 cows per year.

Cornell University research workers like Salisbury, Zelaya, Van Denmark and others have studied bull-semen dilution at various rates with yolk-citrate diluter. H. H. Habibullin found that using a dose of 0.025 cc. of ram-semen containing 80,000,000 spermatozoa was enough to cause conception. 75% of the ewes became pregnant, compared to 78.2% in ewes receiving 0.05 cc. of semen containing 160,000,000 sperms. And also from doses of 0.05 cc. and 0.025 cc. of semen stored for six hours before insemination were enough to cause normal numbers of conception in the case of experiment with goats.

"Sperm diluent" often in use are egg-yolk phosphate and egg-yolk citrate. Egg yolk is therefore common and important to both diluents. Mayer and Lasley isolated an active resistance factor from egg yolk. This gives a water-clear solution in the phosphate buffer which proved more effective than the original egg-yolk buffer mixture by giving the spermatozoa a greater resistance to adverse condition. Frank, Smith and Eichhorn found promising results with diluents manufactured from chick embryos for bull semen.

Cornell University workers found the addition of 58-116 milligrams of glucose per 100 cc. of bovine semen, diluted at the rate of one part semen: four parts yolk-citrate diluent and incubated for one hour at 46.5 degrees centigrade or stored for ten days at 5 degrees centigrade results in increased livability.

STORAGE

V. K. Milovanov carried out studies into the possibility of storing semen under anaerobic conditions. He found that under this conditions i.e. absence of oxygen, spermatozoa retained motility and fertilizing capacity for longer periods. He also recommended that for preservation of the semen inert gas hydrogen or nitrogen be blown through the undiluted semen of bull or ram after which it should be sealed in small capsules. Works carried out by other scientists suggest that deep freezing of the semen may preserve it for even longer periods.

POSSIBLE ADVANTAGES OF A.I.

The most obvious advantage of A.I. is that the usefulness of a superior male parent is multiplied manifold, e.g. Milkdale Aristocrat Rag Apple, one of the great Holstein bulls of his time sired more than 10,000 calves. By natural service, it would take him 200 years to accomplish this feat. A.I. if practised several generations should result in the development of animals of a more uniform type and production. There is also less chance for the spread of venereal disease and thus the incidence of the latter is greatly reduced. Herman, Berousek and Swanson found that A.I. can control vaginitis and trichomoniasis. A.I. makes possible the crossing of animals which are physically unsuited for natural mating. The semen of valuable males can still be utilized even when they become too old or too big for natural service.

Last but not least, not all farmers can afford to buy proven sires, e.g. the Grand Champion Angus bull of the Palermo show held in Buenos Aires some time ago was sold for an equivalent of Malayan \$240,000.00!!! Therefore the introduction of A.I. has helped many an average farmer because the purchase of semen from proven sires are well within their means.

CONCLUSION

These various advantages of A.I. over natural mating may lead some to be too enthusiastic about its use without realising its limitations. It must therefore be stressed that the primary purpose of A.I. is to speed up the rate of livestock improvement. To achieve this, breeders should essentially use sires that are genetically superior to the females to which they are to be bred. The practice of A.I. needs technical knowledge, skill as well as experience.

Readers may want to know when our Malayan livestock owners would be able to reach such a high degree of breeding specilization. Honestly I do not know, only time will tell.

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AGRICULTURAL EXTENSION SERVICE

By Khairi H. Mohamed

One aspect of agriculture which you may ponder centres around the big question: "Does agriculture at all contribute towards national education?" Yes, it does, through its extension service. Extension service is essentially educational and its success depends very much on the voluntary co-operation of rural people. It is aimed, therefore, at education and self-

help rather than the expectation of charitable gifts and free services from the government. Its philosophy is based on the importance of the individual in the promotion of progress for rural people and for the nation.

Extension service has its objectives, which may be expressed in many and varying ways. One that would suit our purpose is: "To readjust agriculture and place it upon a basis of greater profit, to reconstruct the rural home, and to give country life an attraction, a dignity and potential influence it has ever received."

Before we can see how this service can be woven into the pattern of Malayan agriculture, let us first make ourselves clear as to the definitions of the words "objective" and "goal". Objective can be expressed as the direction of movement, and goal as the distance in any given direction one expects to go during a given period of time. In athletics, we admire the man who "has his eyes on the ball". First the goal is made; then the game is won. And so in extension work, there are the immediate specific goals, and the short-time and long-time goals.

In extension work, therefore, a few things should be kept clearly in mind. Firstly, not all people need or desire to go in the same direction or equal distances. The directions have varying degrees of importance to different people. But opportunities should be offered for people to move in various directions. A good objective in extension is one that will provide possible direction for large numbers of people to move some distance. It must help people to define the direction they want and need to go, and then to provide the assistance to them in travelling those directions. In other words, it is the function of extension service to teach the people to determine accurately their own problems, to help them to acquire knowledge and to inspire them to action. But it must be their own action out of their own knowledge and convictions.

There are again the different levels of objectives. Firstly, the fundamental objective, which is an all-inclusive object of society such as the good life, better citizenship, and the development of the individual. Secondly, the general and more definite social objectives such as helping rural people to have better home living. And thirdly, the working objectives in an extension programme.

We must realise the fact that what people want may not be what they need most, and what professional people think good may not be what the rural people need. The successful extension programmes would then be that with which are built on actual situations. Before any work is started, the wants, needs, and problems of the rural family and community must first be studied. We will realise from this principle that the extension worker who is alert to the wants and needs of rural people and tries to help people to satisfy these wants is acknowledged to be superior to another who goes out selling a programme which is unrelated to local desires. Further, the programme must be well planned and completely administered; developed in co-operation with rural people and other organisations, and carried forward with a sympathetic understanding of rural life.

Having understood the essence of extension work, we shall now consider the most important aspect embodying the extension work, and which also present to students of extension a certain amount of shudder in their bones. It is the extension worker himself. You may well wonder why! It is the strong contention that what a man does depend on what he is. Certain personal characteristics are hereupon greatly emphasised to qualify an extension worker. These are vision, ability to plan, initiative, resourcefulness, integrity, faith, courage, judgement, perseverance, tact and power of expression. These qualities are described as essential to all extension workers in all capacities.

The channels through which knowledge is spread in extension are various. Although the methods differ in different countries, the principle is the same. The point is that, people are influenced to make changes in behaviour in proportion to their contact with several different methods. Those methods which reach large numbers of people are the so-called mass media, and the smaller numbers are reached by group activities. The approach by personal contact is the most important and effective but also the most expensive in time and energy. However, each teaching device has its place and they supplement one another. Together they provide the stimulus for interest, desire, action and satisfaction.

Extension service does fit into the pattern of Malayan agriculture and it has been carried out with considerable success. However, extension work in other advanced countries of the world has passed the pioneer period. The older the system grows, the more clearly are the foundations, duties and qualification of its personnel are understood.

In this brief essay it is not the place to give a detailed exposition of extension methods, for these can be complicated processes. It is hoped that enough has been said for one to grasp the essence of it. For the extension worker, the philosophy of extension work must be kept as fundamental objectives and to approach the work as a teacher. This philosophy thrives best in the man or woman who holds deep concern for the well being of mankind and has an abiding faith in rural people.

PROTEINS IN ANIMAL NUTRITION

By Mok Chak Kim

Proteins form the bulk (approximately one-fifth) of the organic matter of the entire body, and hence may be considered as a characteristic of the animal make-up. What are proteins then? Well, they are complex organic compounds, each molecule being composed of thousands of atoms. They contain mainly of carbon, hydrogen, oxygen and nitrogen, but sometimes in addition may be present sulphur, phosphorus or iron. Most proteins are usually insoluble in water, although may dissolve in dilute salt solutions or in alcohol. In solution, proteins have the characteristics of colloids. By adding neutral salts or salts of heavy metals it is possible to precipitate the protein from solution. But the chief significant property of proteins is that on hydrolysis, they end up as relatively simple soluble substances termed amino acids with the general formula $R-CH(NH_2)-COOH$.

As to the chemistry of proteins, it is very complex. Protein molecules are built up from various amino acids linked together by the peptide link, -CO-NH- to form an open long chain. The process is one of condensation, an organic reaction entailing the elimination of water from the molecules involved. In animals, tissue proteins are formed mainly from amino acids derived from the food protein digestion. Therefore, the protein has to be broken down into the various simple amino acids, which then unite in certain definite proportions for each kind of protein. The power of animals to change amino acid of one kind into another is limited, though they can readily make some of the simpler amino acids as by the combination of ammonia or other simpler nitrogenous compounds with organic acids formed from other nutrients supplied. Hence the amino acids which are essential to build up the animal proteins have to be supplied in sufficient amount by the food.

In the case of ruminants the bacteria present in the paunch of ruminants, large intestines and caecum of horses, and limitedly in large intestine of other animals, can digest the cellulose and other complex carbohydrates to manufacture all the amino acids from other nitrogenous compounds. Therefore they are able to make complete proteins from food sources not possible in simple-stomach animals. The bacteria in turn is digested further on in the digestive tract releasing the amino acids formed. By this means these animals are able to secure those amino acids insufficiently supplied in the food if fed to simple stomach animals. The digestion of proteins in animals begins in the stomach where pepsin or enzyme of the gastric juice splits up proteins into proteoses and peptones in an acidic medium of about pH 2. The proteins and peptones together with any unchanged protein then pass into the small intestine. Here the pepsin action continues till the acidity of the food-mass is neutralised by alkaline pancreatic juice, bile and intestinal juice. Pancreatic juice contains the enzyme trypsin, which acts on the protein. It not only breaks up the undigested protein into proteoses and peptones, but also digests the proteoses and peptones further into simple soluble amino acids. The enzyme amino peptidase present in the intestinal juice and dipeptidase bring about the complete hydrolysis of proteins into amino acids. Therefore through the actions of trypsin and other enzymes in the pancreatic and intestinal juices, practically all the protein digestible is broken down into amino acids. A limited amount may be left as peptides, which are relatively simple combinations of two or more amino acids.

In the assimilation, the simple amino acids being soluble are readily absorbed by the villi of the small intestinal walls. Then they pass into the blood and are thus carried to nourish all the various parts of the body. Small amounts of the peptides may be similarly absorbed. The mixture of amino acids carried in the blood stream are extracted by each organ or tissue the quantity that is needed for its repair or working. The nitrogen splitted off from the excess amino acids in the liver is excreted by the kidneys as urine. On the other hand, the non-nitrogenous part of the residue from the deaminised amino-acids can be converted into glucose and glycogen, which can thus be utilised in place of carbohydrates.

Not all the amino acids derived from the proteins digestion are utilised, for the amino acids requirements depend on the kind of animal and the body function. For example those amino acids which are meant for growth are

non-essential in maintaining a mature animal. In the latter case only a small daily breakdown and repair occurs in the protein tissues of the body in which entire protein molecules are not destroyed, but only certain groups are affected. Therefore the requirement for maintenance involves only the replacement of those broken down groups and not the building up of entire proteins.

Altogether there are about twenty-two different amino acids of which ten (Lysine, Tryptophan, Histidine, Phenyl Alanine, Leucine, Isoleucine, Methionine, Threonine, Valine and Arginine) had been found by W. C. Rose to be essential for growth. On absence of any one of these results in retarded growth of the animal. In the case of the ruminants and horses the deficiency of any of these essential amino acids does not often occur because of their abilities to synthesise the essential amino acids by bacterial action as already noted. Therefore the ten amino acids and possibly others which animals normally cannot synthesise and part of animal proteins are termed as 'essential' amino acids. On the contrary, the absence of the other twelve amino acids has no effect on growth and are thus said to be 'non-essential.' Hence proteins containing a proper proportion of all the various essential amino acids are rated as one of 'high biological value'. This is because the amino acids present satisfy both qualitatively and quantitatively the animals' needs for protein synthesis.

The amino acids resulting from the protein digestion may be utilised for a number of purposes namely:- (i) The amino acids are synthesised into tissue proteins in growing animals; milk proteins during lactation; foetus protein during pregnancy; or protein of some product of the body as feathers, hairs and skin, etc. (ii) The amino acids may be absorbed and transformed into essential reactants as enzymes and hormones. For example thyroxine secreted by the thyroid gland is synthesised from the amino acid, tyrosine. (iii) The non-essential or excess amino acids absorbed into the circulation is deaminated into urea or uric acid in which the nitrogenous part (amino group) is splitted off in the liver and removed by the kidneys. The carbonaceous residue may then be oxidized into ready energy; or converted into body fat. It may also enter the glucose-lactic cycle in the carbohydrate metabolism and the glycogen formation. (iv) Or as replacement of the broken down amino acids in the body tissues as in mature non-growing animals.

There are two main sources of protein namely that of animal origin and plant origin. The differences in both chemical and physical properties between the many kinds of vegetable and animal proteins are due mainly to the nature and quantity of amino acids involved in their constitution, and the manner in which the amino acids are linked.

Plant proteins are formed from simple inorganic substances as carbon dioxide, water, nitrates or other mineral salts. Since the plant composition varies considerably (more than that of animal), the variation in protein content is also great. Some plants are very rich in proteins as that of soya bean, while others like corn grain are poor. Plant proteins occur more in leaves (active tissues) than the stem. In the mature plant the seed is richer than the rest of the plant in order to satisfy growth requirements during germination. Plant protein are less susceptible to heating and in some cases (like soya bean protein) heat increases the biological value.

Animal protein on the other hand is more constant and is a result of the food protein digestion. They occur in every cell forming the main constituent of organs and other body tissues as muscles, tendons etc. Hence animal proteins like meat meal, bone meal, fish meal etc. are better than that of vegetable origin as they contain greater amount of protein of high digestibility and not fibrous. But the biological value of animal protein is reduced on heating. Therefore for a proteinaceous nutrition animal protein is preferred to plant protein being of a higher biological value.

From the above short account one may therefore conclude that proteins are of practical importance in animal nutrition. This is especially so in the promotion of growth in growing animals; milk production in milking animals; pregnant females and other productive animals. Moreover, proteins are an important part in the protoplasm and nucleus of the body cell, which constitute the tissues as the muscles, tendons, skeletons and nerves etc. Hence, the aim in feeding farm animals should be to supply the minimum amount of proteins required to satisfy all the animals' need avoiding any excess which will only be a waste and increase feeding cost. It might even harm the animal as the excess will give extra work to the vital organs leading to possible over-straining and diseases. As to the requirements, it varies according to the size and age of the animal. But at the same time, one must not forget that besides proper protein supply, other essentials like carbohydrates and fats, etc. need to be balanced in order to obtain the full benefit of a proper ration fed to animals.

"GROW MORE JASMINE"

By H²

For a long time jasmine has been in the background in the fields of Horticulture and it is, more often than not, our tendency to look at it as possessing no other value besides providing us with a hedge as an additional beauty to our garden. Though this flower is no stranger to the people, it does not seem to get any attention at all.

Jasmine, to a layman is just a flower, but to women it means more than that. In the attempt to improve nature, the woman-folk especially in the kampongs make use of the fresh jasmines to decorate their neatly-plaited hair. It is customary, also, for the Malays in some kampongs to put these flowers into their drinking water for better odour. To the Hindus this flower is given top priority for garlands, offerings to their gods and to decorate their temples.

Grown on a large scale, these plants can give the grower a handsome profit, for not only fresh jasmine but also its by-products find a ready market. The perfume obtained from jasmine flowers is one of the most popular today on account of its delicate odour which is said to be impossible to be synthesised, being usually worth about \$76/- (Seventy-six dollars) per fluid ounce. In South France, one acre of jasmine yields about five hundredweight of blossoms sufficient to perfume one and a half hundredweight of fat or pomade.

Jasmine Sambac is especially noted for its strongly scented flowers. There are a number of varieties of jasmine in Malaya. A few examples are Jasmine sambac (Melor), *J. curtisii* (Bunga pekan), *J. grandiflorum*—common in more tropical parts of North-western Himalayas; *J. officinale*—common in English gardens and occurs wild from Persia to Kashmir; and *J. bifarium* (Melor Hutan).

Jasminum Sambac will grow into bushes if grown unattended whereas some other variety of jasmine e.g. *J. bifarium* and *J. curtisii* are semi-climbers. The small white flowers, in inflorescence (dichasial cyme, i.e. the main axis ends in a flower and produces two lateral axes. The lateral and succeeding branches behave in the same manner.) are sweet-smelling and attractive. The sweet scent as well as the inflorescence attract insects from a distance. At night when colour fails, the scent is particularly useful in directing the insects to the flowers.

Jasmine can grow with considerable success on different types of soil and can blossom almost all the year round. It is important to choose a site with full exposure to the sun. The ideal soil is heavy loam on porous clay, though heavy clay with plenty of cattle manure is quite suitable. Drainage is essential and terraced beds or borders give the best result. The beds should be dug about one to one and a half feet deep turning the lower portion of the soil to the bottom and keeping the surface soil towards the top, mixing with well decomposed organic manure and two ounces of phosphate per yard. The beds should be raised fairly high in case of very wet areas. Single plants are planted on the beds with two and a half to three feet spacing. Plants could also be planted on circular raised beds; one to each bed. These circular beds could be arranged at the discretion of the gardener to suit his land. Young and strong plants (from cuttings) should be selected and a shade should be provided just after planting. It is advisable to remove any flowers that may appear early, so as to encourage vegetative growth. Mulching should be done; also, after planting, to conserve moisture and prevents soil erosion from heavy rains. It might be necessary to do watering in the early stage of growth on very dry days. Jasmine is normally propagated by cuttings, though root-cuttings may be possible. Cuttings of mature stems are inserted in a rooting medium of fine sand (in propagator) at an angle and kept moist and shaded. At least three buds must be present (at the nodes). In order to hasten the root-growth hormones are used. Each cutting is first dipped in water before dipping into powdery hormones (Seradix No. 2). Dip only the end where the roots are supposed to arise latter on. When roots have developed, transplant straight to the already prepared beds (as mentioned above).

Manuring could be carried out just like any other flowering plants. Complete fertilisers from I.C.I. (Imperial Chemical Industries) or Malayan Fertilisers could be used, according to their directions. For example, let us see the instructions of I.C.I. as regards to its 'Garden Fertiliser'. "After the young plants have become established, water twice a week with a solution of 'Soluble Flower Fertiliser' at the rate of two to three tea-spoonfuls per gallon of water using watering-can with a fine rose. For more natured plants increase the fertiliser to four or five teaspoonfuls per gallon applied weekly at ground level to avoid scorching the foliage." However, an application of liquid manure once or twice a week is also beneficial. Jasmine is also subjected to pest like any other flowering plants, the common pest

being the caterpillars. They destroy a lot of young leaves and shoots by eating them. Another pest is the bud-borer (*Hendecasis duplifascialis*) boring the buds and destroying the flowers. These pests could be controlled by using either Dieldrex 15 or any other effective insecticides. However, proper maintenance and attention is probably the best way to safeguard against pests and diseases.

Pruning should also be mentioned here, as it is essential to keep the shape of the plants, strong growth, free flowering and thus retaining the healthiest strong shoots. Jasmine should not be subjected to severe pruning otherwise more and more vegetative parts of the plants would develop. It is directed, therefore, to the removal of dead, diseased and weak stems as well as to keep the shape of the plants. Always fork up and manure after pruning.

LIME AND ITS RELATION TO PLANT AND SOIL

By K.A.J.

It is a fact that soil acidity plays a very important part on the physiological set up of the plant body. The soil acidity together with the physiological conditions that accompany it is a result of a lack of exchangeable metallic cations. The physiological set up of an acid soil can be corrected by adding a suitable quantity of a certain amount of compound carrying one or two of these necessary metals. There are a number of beneficial effects when lime is applied to the soil. It improves the structure of the soil by encouraging granulation. The biological effects include microbial activity, nitrification, nitrogen fixation, sulphur oxidations and humus formation are all increased. Lime also serves as plant nutrient. There are other minor importance brought about by liming such as reclaiming of land run over by sea water. The releasing of other plant nutrients if a correct amount of lime is applied to the soil. Last but not least, liming contributes to soil fertility at large.

The question may arise as to what kind of lime compounds that are best applied to the soil to supply the necessary metallic cations. These materials must be cheap and readily react with the soil. The best form of lime for application to the soil is magnesium lime because, besides supplying calcium it also supplies magnesium. If lime is to be applied for the reasons as given earlier, then ordinary limestone (CaCO_3) is good enough. Besides, limestone dust, hydroxide and oxides of lime could also be applied.

Salts of calcium and magnesium of strong acids are not used for liming purposes because they are difficult to obtain and relatively costly to purchase. They usually cause the liberation of strong acids to the soil solution. As a result the pH of the soil is reduced inspite of the increament in the active calcium. Calcium sulphate is seldom recommended except when it is required to raise the level of the element in the soil without increasing the pH value of the soil itself.

The correct amount of lime to be applied to the soil is rather difficult to determine because of such factors as the "buffering" of the soil. Other factors for considerations are:

- (a) Soil including the pH, texture and structure and the amount of organic matter in the soil.
- (b) Crop to be grown.
- (c) Length of rotation.
- (d) Fineness of the lime compounds.

The following table illustrates the approximate amount of lime needed in the soil of different texture and at different pH.

pH. of unlimed soil.	Tons of lime per acre to increase to pH.6 to pH.6.5			
	Sandy loam		Clay loam	
	pH.6	pH6.5	pH.6	pH.6.5
6.0	—	0.5	—	1.25
5.5	0.5	1.0	1.2	2.5
5.0	1.0	1.5	2.5	3.75
4.8	1.2	1.7	3.0	4.25

In respect to peat soil, which is more acid than mineral soil, it must be 100% saturated with calcium and magnesium in order to attain neutrality or alkalinity.

When lime is added to the soil whether in the form of oxides, hydroxides or carbonates, part of it goes into solution, towards the carbonate form, under the influence of a variable pressure of carbon-dioxide. But this is not always the case because the colloidal matter continually upsets the equilibrium tendencies by absorbing ions of calcium and magnesium. Thus the percentage base saturation of the colloidal complex and the pH. of the soil solution is increased. Eventually, the soil will become acid and so another application is needed.

The response of plants to liming is variable. Of the lime-loving plants, clover, cauliflower and lettuce are representative. Legumes respond quite well to liming. But larger proportion of crops do not show stimulating effect by liming. This may be due to stimulation influence upon the legumes preceding them in the rotation.

So far we are assuming that the amounts applied are in the correct proportion. But what will happen if the soil is over limed. If the pH value of the soil is already seven, many crops that ordinarily respond to lime are

detrimentally affected especially some time following the application. Other results usually affected by over liming are as follows:

- (a) Deficiency in the availability of iron, manganese, zinc and copper may be induced.
- (b) Phosphate availability is decreased.
- (c) The absorption of phosphorus and its metallic use may be interfered with.
- (d) The up take and utilisation of boron may be hindered.
- (e) The drastic change in pH. is itself detrimental to crop. The growth of a number of plants is retarded by over liming. So, when deciding as to whether the soil is to be limed or not, it is wiser to determine the pH. in other words, to determine the exchangeable calcium and magnesium or the percentage base saturation of the soil.

It will be more interesting to know the reaction after application. In heavy soil granulation is affected physically. A satisfactory crumb structure is encouraged in the soil, and others such as:

- (a) The concentration of H-ions will decrease.
- (b) The concentration of OH-ions will increase.
- (c) The solubility of iron, aluminium and manganese will decline.
- (d) The availability of natural or added phosphate will be augmented.
- (e) The exchangeable calcium and magnesium will increase.

The influence of liming over a period of years may raise or lower the soil fertility according to management that follows suit. Liming alone cannot stimulate the return of nutrients to the land even though it influences the availability of these nutrients in the soil. Sooner or later the level of fertility of the soil may lower before lime application can be done. Therefore if the soil is to remain productive for a longer period, it is most essential that careful soil management be practised.

REPORT ON THE SOUTHERN TOUR

(From 5th-11th Sept. 1957)

Forty second and third year students together with two members of the College staff went to Malacca, Johore and Singapore for an educational tour during the September holidays. This tour was conducted with a few objects in mind: (a) to gather first hand knowledge of the different agricultural pursuits in the Southern States; (b) to learn as much practical knowledge by observation right on the spot, and (c) to study more about the animal husbandry industry in these places.

Our first visit was to the Training School of the Rubber Research Institute at Ayer Pa'Abas in Alor Gajah District, Malacca. We were met by Mr. Wong Mun Yun, Senior Rubber Instructor, Malacca/Negri Sembilan who gave us a full account of the centre. The site is on a poor rubber land which has been neglected because of the Emergency. The hostel for the students was built in the Menangkabau style and with good timber. The whole setting of the training centre is very impressive. It is intended to hold eight courses a year with twelve students per course. The main aims of the training school are to give as much practical modern knowledge of the production of rubber as possible; starting from replanting of high yielding clones to the right method of factory organisation and work. The course is also meant to show the smallholders especially the Malays the advantages of replanting their rubber holdings. Some of the Malay small-holders are rather slow in the replanting of rubber owing to a few basic logical reasons; they are doing other work such as padi planting at the same time, and secondly, they lack technical knowledge and the backing to start with.

The training school is the only one of its kind in the Federation and it is entirely run by the Rubber Research Institute, Malaya. It should be the answer to the long-felt need of improving the small-holders' lot. The Government should encourage the R.R.I. to set up more training schools of this type to educate the local small-holders.

The next place we visited after our lunch was the Pulau Gadong Padi Experimental Station. We were met by Mr. Ong Sek Lim, Agricultural Assistant of the Bot. Division, who conducted us round the station. The many and various activities in the station were explained to us by Mr. Ong. Under the Botanical Division the following investigations were laid down at the time of the party's visit:- (a) Padi hybridisation programme in which both local (*indica*) hybrids and *japonica* × *indica* hybrids were under selection. It is hoped that better and higher yielding materials will be selected out of these hybrids in the near future as the most advanced hybrids were then in the F₇ generation. (b) Selections of local varieties in which Nachin and Siam varieties have reached the advanced stage of selection. The fact, the outstanding selections of Nachin (N.5039 & N.5057) have been sent out for regional trials. (c) Variety trials and other ancillary investigations. The station also conducts agronomic trials under the Agronomy Division. The production of good seed for distribution to padi cultivators is another function of the station. Later in the day, the party went to the departmental Stud farm not far away from the padi station. Middle White pigs are kept to provide stud services for local pig rearers. In the farm itself local Sitiawan sows are crossed with Middle White boars. The object is to show local farmers that these cross-bred litters reach slaughter weight earlier than local pigs.

We then left for Malacca at about 4.00 p.m. after a real tiring day. We put up for the night at the Government Officers' Hostel at Bukit Piatu. On the morning of Friday 6th Sept., we left Malacca for the Nylas Road New Rubber Planting Scheme. We were told that this Scheme is financed by the Malacca State Government. The land was allocated to the people in Nylas whose land was taken by the Government during the Emergency. Three hundred and ninety-five acres of land have been given away to the people and each family received three to five acres. The title of the land will only be given when the rubber comes under tapping. The scheme has many practical advantages. It allows clearing and preparation of the land to be done mechanically on a communal basis. It should also reduce the cost of planting, maintenance and production of rubber. Later co-operative systems on production and marketing would be easier and more profitable. Economically speaking, the acreage allotted to each family would not be enough to maintain quite a high standard of living. However, with high yielding clones being planted and correct management, the family income would be more than that of an ordinary clerk. This scheme was initiated by Sir Gerald Templer, the then High Commissioner for the Federation of Malaya. RIDA took the initiative to run it first but later handed over the project to the Malacca State Government.

We left Nylas for Malacca where after lunch we proceeded to the Sungei Udang Agriculture Station. The Junior Agricultural Assistant in charge, who conducted us round explained that the station's quite impressive, considering that it is run by the J.A.A. alone. Here we learned the different methods of lifting budded seedlings—the process took eight days; and, that the J.A.A. is using a different potting mixture from the one we usually practised at the College. In this station the concentration is on fruit trees which the station supplies to all the farmers of Malacca.

On Saturday, 7th Sept. we left Malacca for Mr. Cyril Chew's farm. From the start Mr. Chew explained to us that this poultry farm was strictly on a commercial enterprise. Thus with imported breed, especially white leghorn, the profit was about ten percent. The most expensive item in poultry-keeping is food for sixty percent. of the cost of production is on feeding. The system at the farm is rather intensive with shallow litter system for the young ones. As regards water supply the farm uses nipple to which the birds will go and nip whenever they like. The farm has five hundred birds in lay and has a modern and rather big incubator. The whole emphasis is on egg production. Breeding work was also carried out but on the line which is quite different from progeny breeding. Though the farm is rather small (for to get a good decent living, we need two thousand layers with roughly thirty-five thousand dollars as capital expenditure) the place was well kept and economically run by three persons including Mr. Chew himself. With regard to disease, this is not a problem to Mr. Chew who possesses a sound knowledge on poultry keeping.

Leaving Mr. Chew's farm the party proceeded to the Ayer Hitam Agricultural Station which is under Che Mohd. Noor who conducted us round. The station is a comparatively big one. Though work in the station is mainly advisory and demonstration the annual revenue from sale of station produce is enough for its maintenance. The station also possesses one of the largest collection of mechanical equipments both for the use in the station and hire to the public for piece work. Here again were shown a new idea of lifting and basketing the budded plants. As soon as the budding is successful the plants are put into the baskets and the maintenance is done in the shed. By this method eighty per cent. success can be obtained when planted in the field. Within the station is a Chinese model farm with pig sties and fish ponds. The vegetable garden and houses were in the upper ground with a few acres more for other crops.

We then rushed to the Central Animal Husbandry Station which is about four miles from the Agricultural Station. The assistant conducted us round and from him we learned that the policy of the station was to upgrade the local cattle by crossing with Sindhi bull and other Indian breeds. We were then taken to see the original bulls and cows and their crosses. We were told that some of the bulls could not live long in Malaya owing to climatic reasons. Here a local breed from Kelantan was also under experiment. We were then taken to see the goats most of which were imported from Indonesia. We went back to the station for a free glass of milk after which we were sent back to the training school at Ayer Hitam Agricultural station where we spent the night.

On Sunday, 8th Sept. we went further South to the South Malaya Pineapple Company at Simpang Rengam. We were given a full and technical account of establishing this estate which was about eight thousand acres under planting. The whole estate is just like a small town with all the modern facilities. It is well planned, organised and maintained.

We travelled about the estate in three lorries with an armoured car as escort. Mr. Lim Yin Khean, who took us round, explained the detailed procedure of opening up land for pineapple with definite cost for every section such as clearing, burning, drainage and finally planting. He also showed us Taiwan pineapple varieties under experiment and some manurial trials. We were then given a demonstration on the application of hormone to induce flowering.

Apart from technical matters on the estate we also discussed the labour problems and the future prospect of the pineapple industry. Since pineapple is a perishable crop, labour unrest presented the greatest problem. Secondly, it is competition with other pineapple producing countries. After lunch which was provided by the estate we went to see the laboratory which was

still not yet ready. We were really impressed by Mr. Lim's talk and the management of so vast an estate. Though we suffered much from the burning sun we enjoyed every minute of our stay in the estate.

On Monday, 9th, September, after a hurried breakfast we went by boat from Johore Bahru to the Johore Farms Ltd. owned and run by Mr. Chew Kok Peng, an old boy of the College. Working under him is his European assistant who is in charge of milk production and breeding.

We were conducted round the two thousand acre farm which is still mainly of old rubber, patches of grass and pasture. The farm is not fully developed and a sum of \$400,000 has already been invested. It has twenty-nine high milking cows and is installed with the most modern milking equipment. It also provides its own water and electricity facilities. According to Mr. Chew the farm is still not paying its own. Progress is still slow but it has a very bright future with Singapore as an immediate market, for the demand for milk in the city is great. We were indeed impressed by Mr. Chew's hard work and determination to start from scratch, that is with little experience and near half million dollar capital. The next place the students visited was the Singapore Dairy Farm. The farm is on a commercial project with imported cows from Australia and New Zealand. Now open grazing is found more encouraging than the old system of keeping the cows in the air condition or 'humified shed'. The breeds imported are Jersey and Friesian which give an average production of two gallons of milk every day. The farm is also doing research on fodder grasses especially Napier and Guinea grasses for feeding is one of the greatest problems in local livestock husbandry. The farm have seven hundred heads of cattle and a hundred and fifty sheep. The other difficulties which confront the farm are humidity of the air and local expansion for pasture. To proceed further with the idea of pasture a new clover was under experiment.

We were then taken to the pasture experiment and milking equipment which was meant for transporting to the field instead of the cows coming back to the shed. This farm is making quite a good profit and it is the biggest in Malaya. Accordingly, we were informed that if Malaya could have another type of grass for pasture she would be an ideal place for rearing cattle in South East Asia and could also compete with the milk producing countries of the world.

The Botanic Gardens, Singapore was the next item on the tour programme. Here, we were met by Mr. Lam Hin Cheng, another old boy of the College. He conducted us to the orchid garden where the Gardens' orchid expert showed the party the crosses of all the varieties of orchids. The potting mixtures for orchids and cactus were also shown to us. We

then went to the herbarium section where the officer-in-charge showed us herbarium specimens of plants in the Malay Archipelago. He also gave a short talk on how to preserve the plants for specimens and that plants which needed identification could be sent to Botanic Garden, Singapore. After that we went up to the laboratory to see the germination of orchids in culture solution. As far as orchids are concerned Singapore Botanic Garden is one of the most advanced in the research and production.

On the last day, Wednesday, 11th September we left the Youth Training Centre on our homeward journey for the Lee Pineapple Factory. We were conducted round by the Assistant Manager who showed us the whole process of canning from the start where fruit is being scraped off the skin till packing in the cases which were then ready for export. The factory exports 420,000 cases of cubes, slices and pineapple juice last year. This factory is the most modern well organised with specialised work and equal division and distribution of labour. All the machines work automatically which is also one of the conditions to establish a factory now. Though almost everything is done by machine labour problem is still confronting the factories in Malaya. We were given a chance to see the process how pineapple juice was extracted, purified and canned.

The last place visited in our tour was the Pineapple Canning Research station not far away from Johore Bharu. The station was formerly under Department of Agriculture but its control has since been taken over by the Pineapple Industry Board.

The chief function of the station is to check the standard of the quality of canned pineapples from various canneries. This is to ensure that the quality of canned pineapples to be exported does not fall below the required standard. In addition the station also conducts a certain amount of research. Research on the canning of Malayan fruits such as papaya, rambutan etc. and experiments on the production of concentrated fruit juices are in progress.

The tour has been a successful one indeed. The students definitely learned a great deal of the diverse agricultural activities that take place in the country and whatever knowledge acquired will certainly help the boys of the College when they leave to work in the field. It is hoped that the College could be able to organise more such tours to other parts of the country for the benefit of the students.

KATA PENDAHULUAN

Kita berasa gembira kerana pada tahun ini dapat juga Majallah "Serdang Sun" mengunjongi para pembacha yang terdiri daripada pelajar² dan ibu bapa yang di-hormati sekalian.

Sebagaimana biasa majallah ini menggandongi makallah² yang semuanya terbit daripada usaha dan buah fikiran pelajar² Melayu di-Maktab ini. Daripada makallah² itu dapat-lah pembacha sekalian mengetahui serba sedikit tentang kedudukan pelajar², kerja² yang mereka buat dan pelajaran yang mereka tuntut.

Keluaran majallah pada kali ini berlainan sedikit dengan keluaran yang lepas² oleh kerana keluaran ini ia-lah keluaran yang julong² kali salepas negara kita menchapai taraf berkerjaan sendiri. Kemerdekaan yang telah kita chapai itu bukan-lah erti-nya perjuangan kita telah berakhir, sabenernya kita sedang menghadapi satu lapangan perjuangan yang baharu yang akan menentu-kan setakat mana-kah kebolehan bangsa kita untuk berdiri di-atas tapak kaki sendiri sebagai bangsa² yang berdaulat. Ghalib-nya kekuatan sesuatu negeri itu bergantung kepada iktisad, pentadbiran, dan pertahanan yang kokoh. Tetapi di-antara tiga ini jika di-fikirkan, iktisad-lah yang memegang peranan yang ter-penting sekali.

Jika kita kaji-kan iktisad sesabua negeri itu neschaya kita akan dapati "Pertanian-lah" yang menjadi sumber-nya. Maka oleh sebab itu tidak hairan-lah sesabua negeri yang telah bertemadon, pertanian sangat di-pentingkan. Sekolah², Maktab² dan University² di-dirikan semata² untuk melateh dan memberi pengetahuan yang sedalam²-nya kepada anak negeri supaya dapat-lah mereka itu berkerja mengikut peratoran yang betul. Negera kita yang terkenal sebagai sabua Negara pertanian, usaha² untuk memajukan pertanian sahingga sa-embang dengan kemajuan² yang ada di-negeri lain ada-lah sedang di-usaha-kan. Tetapi jika di-bandingkan dengan kemajuan² yang ada di-negeri lain itu darjah pertanian kita maseh terkebelakangan. Walaupun di-negeri kita ini ada sekolah dan Maktab bagi melateh bakal Pegawai² pertanian tetapi itu boleh-lah di-katakan tidak lengkap kerana **University Pertanian** belum di-dirikan dan maseh di-dalam ura² lagi. Namun begitu kita sangat berharap agar terchita-nya sabua Faculty of Agriculture yang dapat melateh pemuda² yang berkechenderongan di-bahagian pertanian yang lebeh tinggi lagi. Selain daripada itu ia juga akan menjadi lambang yang menunjok-kan negara ini ada-lah sebenar-nya sabua negara pertanian. Kita berharap agar perkara ini mendapat perhatian pembacha² sekalian.

Melalui ruangan ini saya mengambil kesempatan untuk menguchapkan berbanyak² terima kaseh kepada mereka² yang telah menghantar makallah² mereka dan juga terima kaseh² kepada Inche Khalid bin Abdul Rahman B.Sc. (Agric.) sa-orang Pensehara yang terkanan sekali di-Maktab ini yang telah sudi mentashih-kan makallah² yang telah di-muatkan di-dalam ruangan bahagian Melayu Majallah "Serdang Sun" ini.

SALAM BAHAGIA,
Mokhtar bin Tamin.

PERTANIAN MENEMPOH CHORAK BAHARU

Oleh: Qamaruz Zaman

Tiap2 satu chawangan ilmu pengetahuan yang kita dapati di-dunia hari ini ada mempunyai sejarah-nya masing2. Ada ilmu yang sudah lama di-pelajari dan di-'amalkan orang dan ada pula ilmu yang baharu di-ketahui dan masih dalam penyelidekan. Di-antara ilmu2 yang tertua sekali ia-lah pertanian. Hasil2 penyelidekan ahli2 sejarah menunjukkan bahwa pertanian telah pun di-ketahui orang sejak 2,000 tahun sebelum lahir Nabi Allah 'Isa. Tetapi pengetahuan mereka pada masa itu sangat-lah singkat dan terhad.

Jika kita singkap lambaran sejarah dan meninjau kepada chara kehidupan manusia di-zaman dua ribu tahun sebelum lahir Nabi Allah 'Isa neschaya kita dapati manusia tinggal di-gua2 batu dan hidup dengan memakan binatang2 yang di-buru. Oleh kerana bilangan mereka sedikit mendiami bumi ini dapat-lah mereka hidup dengan chara berburu dan makan buahan2 pokok hutan. Lama kelamaan mereka pun mula-lah mengatahui chara menanam pokok2 yang boleh di-makan buah-nya dan juga chuba memelihara binatang yang mereka fikirkan berguna buat mereka.

Sejak itu manusia mulai menghargai faedah berchuchok tanam dan berternak. Oleh yang demikian bertambah-lah makanan mereka dan kurang-lah orang laki2 yang pergi berburu seterusnya kurang-lah bilangan mereka yang menjadi korban binatang2 buas. Pendek-nya manusia sudah mula menikmati kehidupan yang tenteram yang mana menyebabkan bilangan mereka menjadi biak dan mendiami serata pelosok bumi. Dari keadaan yang demikian lahir-lah puak2 manusia dan dari itu lama kelamaan menjadi kaum dan bangsa. Manusia pada masa itu dapat-lah di-katakan telah menempoh satu chorak baru yang menunjukkan tingkatan kemajuan mereka dalam pertanian. Kehidupan mereka yang semata2 bergantung kepada makan daging binatang2 perburuan dan buahan2 kayu hutan itu telah berubah kepada memakan daging binatang2 ternak dan buahan2 dan hasil2 yang di-tanam. Di-sini dapat-lah di-katakan bahwa pertanian itu menjadi satu sukatan yang menunjukkan mundur maju-nya satu2 bangsa itu.

Tetapi chara pertanian pada masa itu masih dalam tingkatan permulaan. Perkakas mereka sangat kunu dan semua-nya berhajat kepada tenaga badan. Tambahan pula ilmu2 yang berkenaan menjaga kesuburan tanah dan menjaohkan musuh2 pertanian tidak ada pada mereka. Lagi pun pertanian pada masa itu hanya mempunyai satu aliran sahaja iaitu suka berpindah2. Selalunya pa'tani berchuchok tanam dan berternak di-satu kawasan; di-tuai, di-tanam dan di-tuai; dan apabila habis kesuboran tanah itu pa'tani2 terpaksa berpindah dan membuka tanah2 baru untuk berchuchok tanam. Begitu-lah pula hal-nya dengan berternak yang mana mereka sentiasa berpindah2 dari satu padang rumput ka-satu padang rumput yang lain untuk mendapatkan rumput2 yang subur bagi makanan binatang2 mereka. Tetapi apabila bilangan manusia bertambah biak dengan hebat-nya, maka kawasan bumi pun menjadi sempit. Tiap2 keluarga hanya akan mendapat kawasan berchuchok tanam yang terhad luas-nya. Tambahan pula keperluan kepada bahan makan bertambah besar maka chara berchuchok tanam dan berternak yang tersebut tadi tiada dapat di-ikuti lagi. Pa'tani2 terpaksa menggunakan tanah2 mereka setiap masa dengan tiada berpindah2 lagi. Ahli2 science pun berlumba2-lah membuat penyelidekan kearah ilmu pertanian sa-

perti masaalah menjaga kesuburan tanah dan bahan2 kimia yang dapat membunuh musuh2 tanaman. Hasil2 penyelidikan ahli2 sains telah dapat menimbulkan baja2 dagangan yang dapat menjamin kesuburan tanah. Di-sini sakali lagi pertanian menempoh chorak baru iaitu daripada pertanian yang berpindah2 kepada yang tetap pada satu tempat dengan menggunakan baja2, dan daripada menggunakan alat2 kunu kepada alat2 moden saperti tractor dan sebagai-nya.

Manusia terpaksa menempoh chorak baru sebilang masa bagi menyesuaikan diri mereka kepada perubahan zaman. Jika tiada neschaya-lah mereka akan di-tinggalkan zaman atau menjadi mundur sa-mundur-nya. Oleh sebab itu jika satu bangsa itu mahu menjadi maju pertama sekali misti-lah ia pandai menyesuaikan diri-nya mengikut perubahan masa. Tuhan berfirman "Bahwa Allah tidak akan merubah nasib satu2 bangsa sahingga mereka sendiri merubah nasib mereka". Masa sentiasa berubah, oleh itu sayogialah kita mengikut perubahan itu.

Sekarang kita sedang menempoh satu perubahan yang amat besar, iaitu daripada sabuah negara yang terjajah menjadi negara yang merdeka dan berdaulat. Kemerdekaan bukan-lah arti-nya kita harus berhenti berjuang bahkan kita harus melipat gandakan usaha kita untuk mengisi kemerdekaan itu supaya ia-nya tidak di-sifatkan sebagai kemerdekaan yang kosong. Perkara yang hendak saya sebutkan di-sini ia-lah tentang pertanian yang mana ia saharus-nya sama2 menempoh pembaharuan. Chara2 berchuchok tanam yang di-jalankan oleh peladang2 maseh lagi mengikut chara2 lama. Bagitu juga perkakas2-nya dan juga keperchayaan yang karut2 itu maseh menjadi pegangan orang2 kita. Perkara2 ini menjadi penghalang kemajuan pertanian kita. Sebenarnya chara pa'tani2 kita berkerja di-hari ini dapat di-katakan chara lama yang telah di-amalkan nenek moyang kita dulu kala. Ini harus diperbaiki untuk kemajuan bangsa kita. Dalam keadaan Malaya meredeka ini maka sudah sewajib-nya-lah kita mengisi kemerdekaan itu dengan kerja2 yang menbena negara. Pa'tani mempunyai peranan yang tersendiri dalam menbena negara. Peranan2 yang penting itu dapat di-jalankan dengan lichin-nya jika pa'tani2 sedia berusaha lebih giat lagi, sedia mempelajari chara berchuchok tanam dan berternak yang betul dan sedia membuang faham2 karut yang bersalahan dengan agama. Jika kita selideki maka akan kita dapati ada beberapa perkara yang telah menjadi penghalang kemajuan peladang2 Melayu.

(1) Orang2 Melayu mudah berpuas hati dengan apa2 yang ada pada diri mereka walaupun keadaan mereka serba kekurangan. Fahaman ini menjalar dan hidup subur di-kalangan peladang2 di-kampong2. Boleh jadi perkara ini di-sebabkan oleh keperchayaan mereka kepada pepatah Melayu yang berbunyi "Rezeki sachupak tidak akan menjadi sagantang" atau pun oleh kerana mereka patoh kepada stengah ajaran2 yang mengatakan "Bahwa dunia ini saperti bangkai barang siapa gemarkan-nya ia-lah anjing". Fahaman begini-lah merachon ka-mahuan orang2 kita daripada menchapai kemajuan. Mari-lah kita hapuskan fahaman ini daripada diri kita dengan berpandukan hadith Nabi Mohammad S.A.W. yang berma'ana "Ber'amal-lah kamu untuk dunia kamu saolah2 kamu akan hidup selama2-nya ; dan ber'amal-lah kamu untuk akhirat kamu saolah2 kamu akan mati esok hari". Di-sini Nabi Mohammad S. A. W. mengarahkan supaya kita mementingkan kedua2-nya iaitu-dunia dan akhirat supaya terselamat-lah kita di-dua2 tempat itu.

(2) Kerana kurang pengetahuan dan pengalaman, peladang2 Melayu tiada dapat mengeluarkan penghasilan yang sabanyak2-nya dari ladang mereka. Peladang2 Melayu belum tahu bagaimanakah menjaga ladang2 mereka supaya sentiasa subur. Peladang2 jarang menggunakan baja2 maupun baja2 dagangan ataupun baja2 asli, boleh jadi kerana mereka tidak mampu atau tidak tahu menggunakan-nya. Kebiasaan pa'tani2 kita apabila bertanam pokok2 selalu di-biarkan hidup dengan kehendak pokok2 itu sendiri dan tidak di-jaga dengan sepatut-nya. Akibat-nya pokok2 itu hudup dengan tidak sempurna. Sawah2 padi pa'tani di-kampong sentiasa terbiar, di-tumohi rumput apabila sahaja lepas menuai padi. Walhal sawah padi itu di-masa kering-nya dapat di-tanam pula dengan berbagai2 jenis tumbohan2 seperti jagong, kacang dan sayuran2 yang dapat di-jual bagi menambahkan mata pencaharian-nya sebagaimana yang di-buat oleh orang2 China di-Sekinchang daerah Tanjong Karang, negeri Selangor. Pertanian seperti ini tidak shak lagi berhajat kepada menggunakan baja yang banyak, tetapi hasil-nya sangat-lah menggembirakan kita, dan keuntongan sudah tentu banyak. Buat panduan kita mari-lah kita ikut pesanan Nabi Mohammad S.A.W. "Tuntut-lah ilmu pengetahuan walaupun kenegeri China". Sekarang ini kita tidak payah pergi kesana kerana mereka ada di-sekeliling kita; tauladani-lah yang baik-nya dan tinggalkan-lah apa2 yang tidak baik daripada mereka.

(3) Selok belok perniagaan. Apa yang saya maksudkan di-sini ialah menjual hasil2 pertanian di-kampong2. Dasar pembeli2 yang tiada membezakan2 di-antara barang2 yang tinggi mutu-nva dengan barang2 yang rendah mutu-nya, seperti getah nombor satu di-samakan harga-nya dengan harga getah nombor dua atau tiga; kelapa kering yang baik di-samakan harga-nya dengan yang tidak baik, menyebabkan pa'tani2 berhenti daripada mengeluarkan barang2 yang baik mutu-nya. Perbuatan pembeli2 seperti ini menyebabkan peladang2 menanggung kerugian yang banyak. Begitu juga halnya dengan penjualan padi di-kilang2 padi. Ada pun padi itu kering atau pun basah tetap akan di-potong kati-nya. Ini ada-lah sangat menyedehkan hati kita melihat-nya apatah lagi bagi mereka yang terkena begini. Perkara ini dapat di-tentang jika peladang2 mahu bermuafakat membuat kedai2 shariat untuk membeli hasil2 mereka dan menjual kepada mereka barang2 keperluan mereka sahari2 dengan harga berpatutan. Di-kebun2 getah dan kebun2 kelapa yang banyak di-diami orang2 Melayu harus-lah di-dirikan rumah2 asap getah dan rumah2 penyalai kelapa supaya dapat mengeluarkan bahan2 yang tinggi mutu-nya.

Selain daripada tiga perkara yang di-sebutkan di-atas tadi ada banyak lagi perkara2 yang telah menyebabkan kemunduran peladang2 kita yang tidak dapat saya isikan dalam ruangan yang pendek ini. Namun bagitu memadai-lah jika tiga perkara yang tersebut di-atas tadi kita renongkan lebeh dahulu. Mudahan2 dengan kesedaran yang ada pada kita dan semangat kemerdekaan yang sedang bergelora di-jiwa kita, petani2 akan lebeh bergiat lagi berusaha memperbaiki chara2 pertanian supaya taraf kehidupan bertambah maju dan seterusnya bertambah tinggi-lah ekonomi negara kita.

APA-KAH PENDIRIAN PERSEKUTUAN TANAH MELAYU

Oleh: Ismail Ahmad

Jika kita hendak menilai kemajuan-kemajuan yang telah di-chapai di-lapangan pertanian, kita terlebih dahulu perlu mengetahui akan kedudukan pertanian di-dalam masyarakat Persekutuan. Ini tidak bermaana bahawa pesti meninjau akan sejarah penyebaran bahan-bahan pertanian. Di-sa-balek-nya kita akan ha-nya melihat dengan sa-layang pandang perasaan raayat terhadap pertanian.

Kebanyakan penghuni negeri ini maseh lagi mundur di-dalam pengetahuan dan lemah di-dalam perasaan. Sebab-nya di-katakan demikian ialah meski pun pertanian ada-lah satu pekerjaan mulia, sedeh-nya ia tidak mendapat tempat yang penting di-dalam masyarakat Persekutuan merdeka. Penting-nya kedudukan pertanian dalam masyarakat telah beberapa kali ditegaskan oleh ahli-ahli tanaman. Kesalahan ini sudah tentu terletak di-atas bahu para terpelajar yang tidak mengambil berat untuk mengembangkan dan mangharomkan nama pertanian.

Pertanian telah di-ketepikan sama sakali, hingga banyak daripada peladang-peladang sendiri meninggalkan kebun sawah mereka yang telah di-jagai oleh datok nenek berabad lama-nya, di-tarek chahaya terang bandar raya. Beberapa chontoh dari kesimpulan di-atas molek juga di-sebutkan di-sini.

Amat sadikit daripada penuntut-penuntut berkelulusan Senior Cambridge yang berkechonderongan untuk mencheborkan diri mereka di-dalam lapangan pertanian. Sa-bagaimana besar dari penduduk Persekutuan perchaya bahawa pertanian bukan-lah amalan manusia terpelajar; pendek-nya bagi mereka memegang changkul itu ada-lah jijik. Terlupa mereka akan penderitaan kita di-masa Jepun dahulu, terlupa mereka akan kesusahan-kesusahan yang telah di-hadapi waktu pechah perang yang ke-dua, waktu mana negara-negara semua menggunakan tenaga-nya untuk mengeluarkan senjata dan ubat bedil. Barang makanan ada-lah terhad dan pada masa itu penduduk Persekutuan kebanyakan-nya meninggalkan pina masing-masing untuk berkebum. Tetapi ini semua telah di-lupakan.

Perasaan menjijikkan pertanian ini ada-lah di-anut oleh sa-golongan raayat kita; selagi perasaan ini terpendam di-dalam hati kechil mereka maka sa-lama itu-lah juga raayat Persekutuan akan berjalan di-dalam gelap dipimpin oleh bangsa lain yang sudah pun bertamaddun.

Penchiptaan kemajuan di-dalam pertanian ada-lah memerlukan perombakan segala peris-pertis yang kono. Bentok masyarakat penjajahan mesti di-hapuskan dan raayat ramai patut di-ajar agar menghormati kemuliaan pertanian, tetapi sa-belum perasaan menghormati ini dapat di-semaikan di-dalam sanubari mereka, mustahak bagi pehak berkuasa membantu peladang-peladang dan memberi pengajaran yang sesuai untuk membuat kemajuan dalam hal pertanian. Sa-lagi pekebum-pekebum kita maseh buta huruf, maka sudah tentu segala langkah-langkah yang di-ambil tidak akan berjaya, bak kata pepatah "ayer di-tuang ka-atas daun keladi mana akan basah."

Hasrat yang bergelora di-kalangan umat Persekutuan untuk maju dalam pertanian tidak dapat di-penuhi sa-kira-nya chara-chara-nya itu chara lama. Perlu kita mengikut masa bukan sahaja di-dalam hal pakaian tetapi juga di-dalam hal pertanian.

“Sa-bagaimana muka yang hitam dapat di-putihkan dengan bedak, maka bagitu-lah juga tanah yang usang dapat di-suborkan dengan menggunakan dan mengutamakan teknik baru.”

MARI BERGOTONG ROYONG

Oleh Tamin Hussin, Murid tua.

Mari kita bergotong royong
Menchangkol tanah yang maseh kosong.
Siapa menyemai
Tentu akan menuai,
Hidup berbahgia terchapai.
Ka-sawah memikul changkol,
Heh kawan Che' Mat dan Che' Dol
Banyakkan hasil padi si-ramai
Kita ma'amur dan damai,
Anak isteri semua sesuai.
Changkol tanah sampai gembor
Taroh baja supaya subur.
Benih pilehan di-semai
Besar hasil di-tuai
Hidup ma'amur rukun dan damai.

KESULITAN2 PEKEBUN2 KELAPA

Oleh: Ab.—Pontian, Johore.

Dalam masa kelepasan penggal lepas saya dan beberapa orang rakan saya telah membuat suatu siasatan berkenaan penyakit pokok kelapa di daerah Batu Pahat dan Pontian. Sambil menjalan-kan penyiasatan tersebut saya berpeluang bertemu dengan beberapa orang pekebun kelapa kecil di beberapa mukim. Saya telah berbual dan bertanya kepada mereka berkenaan kehidupan dan kebun mereka. Sa-tengah daripada mereka saolah2 mengadu kepada saya yang mereka maseh lagi menghadapi berpa2 kesulitan. Chuma sabahagian kecil sahaja daripada mereka telah berjaya mengatasi kesulita 2 itu dengan di-bantu oleh kerajaan.

Salah satu daripada kesulitan2 mereka ia-lah membuat tali ayer. Kebun2 kelapa yang hampir dengan laut selalu di-achapi oleh ayer laut terutama di-musim ayer pasang besar. Kebun yang jauh daripada laut pula selalu di-dapati banjir di-musim hujan. Pekebun2 kelapa di-daerah ini telah membuat benting di-tepi2 kebun merika untuk menahan ayer laut itu masuk ka-kebun2 mereka. Kerajaan telah memberi bantuan kepada mereka. Benting2 yang kuat telah di-bena di-tepi2 laut dan tali2 ayer yang besar telah di-gali di-daerah2 yang selalu banjir. Yang demikian kebun2 mereka tidak lah sentiasa bertakong dengan ayer. Tetapi ada lagi mukim2 atau parit2 yang masih di-achapi ayer masin atau bah apabila musim hujan sampai.

Pekebun2 menyatakan kepada saya semenjak ada tali ayer dan benting2 yang kuat itu, pokok2 kelapa mereka telah pulih dan hidup dengan subur-nya. Hasil mereka pun makin bertambah.

Boleh kata tiga suku pokok kelapa yang saya siasat sudah tua-enam puloh tahun dan ka-atas. Sa-harus nya pokok2 itu di-tebang dan di-tanam semula. Tetapi sedih-nya pekebun2 itu tidak mampu hendak membuat demikian. Soalan yang sangat mereka runsing kan ia-lah soalan nafkah anak isteri merika termasuk merika sendiri sementara menanti kan hasil pokok kelapa yang bahru mereka tanam itu.

Pekerjaan menanam semula tidak boleh di-anggap pekerjaan yang mudah. Tetapi walau pun demikian pekebun2 itu boleh membuat pekerjaan itu asal kan mereka dapat bantuan. Menyemai benih2 kelapa itu tidak menjadi soalan. Yang menjadi soalan dan runsing kepada mereka itu ia-lah membuang batang2 kelapa yang sudah di-tebang. Batang2 ini mesti di-tanam atau di-buang jauh daripada kebun kelapa itu kerana jika tidak dibuat demikian neschaya kumbang akan membuat sarang nya di-batang2 itu. Kumbang itu tidak pula menumpang sahja di-situ tetapi kumbang itu akan menjahanam kan pokok kelapa besar atau kecil yang berhampiran.

Selain daripada kumbang, tikus jua merosak pokok kelapa terutama pokok2 yang kecil atau yang bahru di-tanam. Pekebun2 itu menyata kan kepada saya bahwa mereka belum berjaya lagi untuk mengalah kan musoh2

itu. Mujor lah bilangan pokok2 kelapa yang di-rosak kan oleh musoh2 itu tiada lah berapa banyak.

Boleh kata semua pekebun2 itu membuat kelapa kering nombor dua sahaja dan kelapa kering itu di-jual kepada kaum India yang sentiasa meraeh di-kampong2 mereka. Yang demikian harga kelapa kering yang di-jual oleh pekebun2 itu sangat lah murah jika di-banding kan dengan harga yang di-tetap kan.

Kesulitan2 pekebun2 kechil kelapa itu boleh di-atasi beransor2. Tetapi pekebun2 itu mesti-lah berkerja dengan giat. Yang sebaik2 nya merika bermufakat sesama mereka—bekerja dengan chara bantu membantu-“co-operation”. Jika pekerjaan mereka di-jalan kan mengikut chara ini neschaya pekerjaan boleh di-siap kan dengan lekas dan senang. Mithal-nya pekebun2 di-dalam sa-buah kampong mandiri kan sa-buah salai kelapa sahja pun chukop. Tetapi salai itu biar lah besar, kuat dan betul2 mengikut chuntoh yang di-buat oleh pejabat pertanian.

Tiada lah payah tiap2 saorang pekebun yang mempunyaili tiga atau empat ekar kebun kelapa membuat sabuah salai kelapa yang kechil. Ini membuang kan wang dan masa sahaja. Begitu jua perkerjaan menyalai kelapa merika pun baik di-buat dengan chara bantu membantu. Mithal-nya hari ini giliran si-Kassim menyalai kelapa-nya, dan esok giliran si-Ahmad pula. Dan bila si-Kassim menyalai kelapa-nya semua pekebun2 di-dalam kampong-nya menolong-nya. Itu lah yang di-kata kan berkerja bantu membantu.

Jika boleh, kelapa kering yang mereka buat terus di-jual ka-gudang2 membuat minyak kelapa di-bandar. Pekebun2 itu tiada dapat membuat demikian kerana mereka tiada berkendaraan untok menghantar kelapa kering itu ka-bandar. Bagi mengatasi kesulitan ini, tuboh lah sharikat jimat chermat di-kampong mereka. Dengan ada-nya sharikat ini neschaya mereka akan dapat membeli kereta2 untok mengangkut hasil mereka.

Musoh kelapa seperti tikus boleh di-hapus kan. Kebun2 kelapa mesti lah di-terang kan dan belukar2 dan semak2 yang berhampiran dengan kebun kelapa itu mesti lah di-tebas. Kerana tikus2 suka membuat sarang di-semak2 atau di-belukar2 itu. Rachun2 tikus boleh juga di-dapati di-Pejabat Pertanian.

Jika di-pandang kepada kehidupan dan pendapatan pekebun kechil hari ini mereka patut mengubah chorak hidop mereka dan chara2 mereka berkerja. Jika tiada, payah nampak-nya bagi mereka meninggi kan kehidupan mereka. Mereka dapat menuboh kan chorak hidup yang bahru, ya' itu chorak hidup yang ma'mor dan bahgia jika sekira-nya mereka berkerja sama dengan pegawai2 kerajaan, terutama sekali pegawai2 pertanian.

SERUAN KU KEPADA ANAK TANI

Oleh: Abmy Pontian, Johore.

Bangkit! bangkit! wahai anak tani
Sabelum embon meninggalkan bumi,
Bersedia; jangan buang masa
Bantu ayah dan ibu berkerja
Di-sawah, biar pun di-ladang ubi
Membajak, menchangkol bersungguh2 hati.
Ayah dan ibu mu sudah tua
Siapa kah ganti mereka?
Tidak lain orang, kamu saudara saudari.
Lanjutkan langkah2 orang tua,
Buktikan kepada isi negara
Kamu juga berguna kepada mereka.
Getah hasil yang terutama sekali
Nasi makanan penduduk negara ini
Koko teh dan kopi
Minoman mereka pagi dan tengah hari;
Siapa akan menanam getah, kopi dan padi?
Kamu kan! saudara saudari—anak tani !!
Ia! anak tani juga harapan bangsa
Berhidmat kepada bumi putra;
Sedia! mulaikan kerja.
Mengeluarkan hasil tanaman negara;
Jangan lekas putus asa
Jika kamu gagal berjaya.
Pandu kepada chugan kata
“Sabar, Chuba, Tekon! dan Setia”
Tumpukan segala tenaga kepada kerja
Akhir-nya kamu akan berbahgia.
Jangan suka berdasar dengan kata2
“Chukup-lah apa yang ada.”

PENYATA TAHUNAN

PERSATUAN MUSLIM MAKTAB PERTANIAN, MALAYA.

(TAHUN 1957/58)

PENDAHULUAN

Pada 20hb Desember, 1958 usia PMMP/M akan genap 8 tahun. PMMP/M telah di-tubuhkan dengan tujuan2 hendak meninggikan dan menjaga kepentingan Ugama dan kebudayaan penuntut2 Islam di-Maktab ini.

Semenjak di-tubuhkan PMMP/M telah menghadapi berbagai2 halangan. Hinggakan masa ini, sunggohpun PMMP/M telah berikhtiar dengan sapenoh2 giat, tidak-lah boleh di-katakan gerakan-nya sangat memuaskan hati. Walaupun demekian, dengan berkat ketabahan hati sekelian penuntut2 Islam Maktab ini maka PMMP/M maseh terus bergerak sa-hingga begini lama—bergerak untok kebajikan ahli2-nya bagi sa'at ini dan juga masa hadapan.

PENTADBIRAN

PMMP/M ada-lah di-ta'dbirkan oleh Jawatan Kuasa Tadbir yang dilantek oleh Meshuarat Agong Tahunan. Balam tahun 1957/58 Meshuarat Agong yang bersidang pada 15hb July, 1957 telah menlantek Jawatan Kuasa Tadbir, pemereksa kira2 dan penesehat2 saperti berikut:

Jawatan Kuasa Tadbir

Yang Di-Pertua	..	Inche'	Qamaruz Zaman bin Haji Ismail.
Naib Yang Di-Pertua	..	..	Yusof bin Thamby.
Setiausaha Agong	..	..	Abdullah bin Mohd. Yunos.
Penolong Setiausaha Agong	..	..	Ja'afar b. Haji A. Rahman.
Bendahari	..	..	Y. T. M. Raja Tajuddin bin Raja Razman.
Setiausaha Rencham	..	..	Ismail bn Haji Othman.
Penjaga Khutub Khanah	..	..	Mohamad bin Ismail.
Wakil-wakil	(1)	..	Hashim bin Wahab.
	(2)	..	Baharom bin Mohamad.

Dua Orang Pemereksa Kira2

- (1) Inche' Udanis bin Mohd. Noor.
- (2) Inche' Wan Malek bin Mohamad.

Dua Orang Penesehat

- (1) Inche' Zulkifli bin Mohamad.
- (2) Inche' Khalid bin Abd. Rahman.

AHLI2

Pada tahun ini "Academic Year 57/58" persatuan ini ada mempunyai sa-banyak 35 orang ahli. Semua ahli2 itu penuntut Maktab inibelaka.

JAWATAN KUASA RENCHAM

Jawatan Kuasa ini di-pengurusikan oleh Setiausaha Rencham sendiri. Ahli2-nya terdiri daripada:

Setiausaha Rencham (Pengurus)	..	Inche'	Ismail bin Haji Othman.
Setiausaha Pergaulan	..	,,	Zainal Abidin bin Ahmad.
Setiausaha Lawatan dan Sokan	..	,,	Ahmad bin Johari.
Setiausaha Derma dan Kebajikan	..	,,	Mohd. Shah b. Haji Lassim.

Pergaulan

Satu jamuan minom teh telah di-selenggarakan untuk menyambut dan merayakan Hari Keputaran Nabi Mohammed S.A.W. Untuk menyerikan sambutan itu tetamu2 khas dari College Islam dan Kuala Lumpur telah di-jemput memberi sarahan2 berkenaan Ugama. Selain daripada ahli2 persatuan, penuntut2 'Certificate Course' dan penduduk2 Islam Serdang telah turut hadir dalam majlis tersebut.

Wakil Radio Malaya (Bahagian Melayu) telah juga di-jemput untuk membuat rakaman upacara tersebut; dan rakaman itu telah di-siarkan didalam ranchangan "Siaran Ka-kampong2" Radio Malaya, Kuala Lumpur.

Untuk menyambut dan mengalu2-kan kedatangan ahli2 Persatuan Muslim Maktab Kejeruteraan dan Muslim Society, University Malaya (Bahagian Kuala Lumpur) satu majlis minom teh telah di-adakan.

Satu majlis Makan Malam akan di-ranchangkan untuk menyambut 'Bulan Puasa'.

Lawatan

Bagi meluaskan pandangan mendalamkan pengetahuan dan juga memajukan salatu rahim dengan pelajar2 Maktab lain, satu lawatan ke-tempat2 di-bawah ini telah di-jayakan:-

- (1) College Islam, Malaya, Klang.
- (2) Port Swettenham.
- (3) Lever Brothers (Malaya) Ltd., Kuala Lumpur.
- (4) Utusan Melayu, Kuala Lumpur.

Ranchangan lawatan ke-tempat2 di-bawah ini tidak dapat di-jayakan kerana sebab2 yang tidak dapat di-elak:-

- (1) Perusahaan Coca Cola.
- (2) Batu Cavé.

Sokan

Satu perlawanan. bola sepak, sechara pershabatan, telah di-adakan di-antara pasokan PMMP/M dan pasokan Persatuan Muslim Maktab Kejeruteraan dan Muslim Society, University Malaya; dan perlawanan ping-pong dengan pasokan tersebut juga tidak dapat di-jayakan kerana kesuntokan masa.

Derma dan Kebajikan

Satu kutipan derma khas daripada bekas penuntut² Islam Maktab ini telah di-usahakan. Wang derma itu di-chadangkan untuk mengantar satu rombongan wakil dan sokan ke-Persidangan Agung GPMS Ke-X. Tetapi kerana wang kutipan yang di-terima sangat-lah sedikit maka rancangan mengantar rombongan tersebut telah di-batalkan. Wang itu telah di-gunakan untuk perbelanjaan wakil² PMMP/M ke-persidangan tersebut dan juga telah di-berikan kepada tabong 'Derma Persidangan Agung GPMS'.

Untuk membantu penduduk² Serdang membuat seling Masjid Serdang satu kutipan derma daripada ahli² telah di-usahakan.

KHUTUB KHANAH

Jawatan Kuasa Kechil Khutub Khanah di-pengurusikan oleh Penjaga Khutub Khanah. Ahli²-nya terdiri daripada:

- (1) Inche' Mohamad bin Ismail (Pengurus).
- (2) ,, Harun bin Manan.
- (2) ,, Mokhtar bin Tamin.

Khutub Khanah ini di-buka dua kali sa-minggu untuk ahli² meminjam buku² yang berchorakkan cerita rekaan, agama, sejarah dan lain².

Dalam tahun ini sa-banyak 22 buah buku Melayu telah di-beli. Majallah² seperti Mustika, Dewan Bahasa, Muslim Digest, Islamic Review, Pelajar dan surat khabar (Utusan Melayu dan Zaman) ada di-beli untuk bacahan hari².

Majallah² dan ahbar² perhuma ada juga di-terima daripada USIS dan Kedutaan Besar Republik Indonesia.

Selain dari itu rekod² (pireng hitam) Melayu pun ada di-beli. Ahli² telah di-beri kesempatan memainkan rekod² itu di-masa rehat.

LAIN2 PERKARA

Kovensi Kebangsaan Pelajar²

PMMP/M telah mengantar sa-orang wakil, Inche' Qamaruz Zaman bin Haji Ismail, untuk menjadi wakil GPMS ke-Kovensi tersebut, yang telah bertempat di-Kuala Lumpur. Tiga orang pemerhati PMMP/M ada turut hadir bersama wakil-nya.

Persidangan Agung GPMS Ke-X

Tiga orang wakil PMMP/M telah hadir di-dalam persidangan tersebut yang telah di-adakan di-Melaka pada bulan Desember yang lalu. Wakil² itu ia-lah:

- (1) Inche' Qamaruz Zaman bin Haji Ismail.
- (2) ,, Hashim bin Wahab.
- (3) ,, Wan Malek bin Mohamad.

PMMP/M telah mengantar 3 buah usul ke-Persidangan tersebut. Usul² itu telah di-terima.

Pelajar Di-udara

Ini-lah kali yang pertama PMMP/M, salah satu persatuan yang bergabung dengan GPMS, telah mengambil bahagian di-dalam ranchang di-atas yang di-siarkan dari Radio Malaya dan yang di-anjorkan oleh GPMS. Pada 2hb February, 1958 penglola ranchangan tersebut telah datang ke-Maktab ini untuk membuat rakaman isi2 ranchangan itu. Rakaman itu telah di-siarkan dari Radio Malaya, (Bahgian Melayu), Kuala Lumpur.

PENUTUP

Ranchangan2 PMMP/M bagi tahun, ini, yang telah dapat di-selangka-rakan, telah di-jayakan dengan lichen. Uchapan terima kaseh patut di-tujukan kepada sekalian ahli2 Jawatan Kuasa Tadbir, Jawatan Kuasa Kechil Rencham, Jawatan Kuasa Kechil Khutub Khanah, dan sekalian ahli2 atas kerja sama mereka untuk menjayakan ranchangan2 itu. Mereka menaruh perasan saling mengerti, juga timbang rasa untuk memajukan PMMP/M seluroh-nya.

BERHIDMAT KEPADA BUMI PUTRA,

MENYALAMATKAN TANAH DAN TANAMAN.

ABDULLAH BIN MOHD. YUNOS,

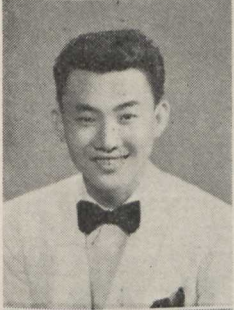
Setiausaha Agong PMMP/M 1957/58.

LIST OF STUDENTS



Che Mohd. Yusoff bin
Thamby,
Major Scholar, Perak.

Che Ahmad Basir bin
Haji Ibrahim,
Major Scholar, Pahang.



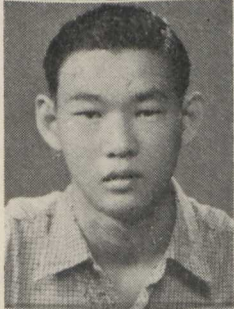
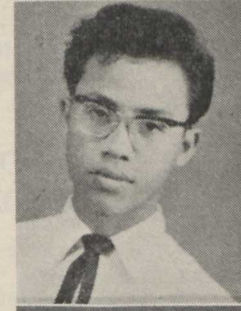
Mr. Liu Chang Lan,
Major Scholar, Sel.

Che Khairi bin Haji
Mohamed,
Major Scholar, Johore.



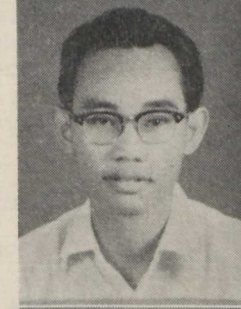
Che Talib bin Majid,
Major Scholar, Sel.

Che Abdul Halim bin
Mohd. Hassan,
Major Scholar, Kedah.



Mr. Mok Chak Kim,
Major Scholar, Sel.

Che Ismail bin Ahmad,
Major Scholar, Kedah.



Mr. Chin Kim Wah,
Major Scholar, Negri
Sembilan.

Che Hoesni bin Abu
Bakar,
Major Scholar, Perlis.



LIST OF STUDENTS



Che Nik Abdul Halim
bin Nik Yusoff,
Major Scholar, Kel.

Mr. Ong Boon Ho,
Private Student,
Johore.



Che Wan Mahmood bin
Wan Idris,
Major Scholar, Kel.

Che Ahmad Mahiddin
bin Ulong Sha'ban.
R.R.I. Student in
Training.



Mr. Tan Kwang Jin,
Major Scholar,
Penang/P.W.

Mr. Phang Ah Kow,
R.R.I. Student in
Training.



Che Baharom bin
Mohammed,
Major Scholar,
Malacca.

Mr. Soh Ah Leng,
R.R.I. Student in
Training.



Chen Pershing alias
Pershing Tseng,
Private Student, Sel.

Mr. Tay Meng Kwang,
Major Scholar, S'pore.





THE COLLEGE OF AGRICULTURE STUDENTS' UNION COUNCIL (1957-58)
SITTING (L. to R.): Che Mohd. Yusoff bin Thamby, Che Khairi bin Hj. Mohamed,
Che Wan Mahmood bin Wan Idris, Che Ismail bin Ahmad, Mr. Tan Peng Hock.
STANDING (L. to R.): Che Baharom bin Muhamad, Che Hoesni bin Abu Bakar,
Che Abdul Halim bin Mohd. Hassan.

ANNUAL REPORT OF THE COLLEGE OF AGRICULTURE STUDENTS' UNION (ACADEMIC YEAR 1957/58)

The 11th Students' Council of the College of Agriculture Students' Union took office as from the 24th July, 1958 after a successful Annual General Election. The Union machinery worked throughout the year in quiet efficiency and in complete harmony after a good start. This is a year significant to the Union with the prevalence of the spirit of close co-operation and understanding among all members. Internal as well as external activities were maintained at the desirable mark.

The 11th Students' Council comprise of the following:-

President	..	Che Wan Mahmood bin Wan Idris.
Vice President	..	Che Ismail bin Ahmad.
Secretary General	..	Che Khairi bin Haji Mohamed.
Asst. Secretary General	..	Mr. Tan Peng Hock.
Financial Secretary	..	Che Baharom bin Muhamad.
Students' Welfare Secretary	..	Che Abdul Halim bin Mohd. Hassan.
Sports Secretary	..	Che Mohd. Yusof bin Thamby.
Literary & Social Secretary	..	Che Hoesni bin Abu Bakar.

MEMBERSHIP

This is the first academic year whereby the College enrolled only Major Scholars. As such, the Union membership is only 67 strong. Even so, the figure shows the first increase in the number of first year students admitted into the College from the usual 20 to 27 this year.

GENERAL MEETINGS

The 11th Annual General Meeting was held on 23rd July 1957. No other General Meetings were called in the course of the year as there were no occasions which necessitated them.

COUNCIL MEETINGS

The Students' Council met regularly every term to discuss and solve problems pertaining to students' activities and interests. Attendance were regular and the common problems met by the Council were those concerning finance which were inevitable due to the small membership.

Various Memoranda were sent to the authority with the aim of achieving better living conditions for the students. Since these processes take time to be accomplished, the benefits would certainly be tasted by future students.

SOCIAL CONTACTS

It is the policy of the Union to have as many social contacts as possible with students of other institutions of learning and the general public to widen the outlook of members. Fitting occasions for such contacts were the holding of termly social dances, participating in invitation events during sports meets, through friendly matches in games and by contacts with visiting students from many places including outside countries who often visited the College.

NATIONAL PREPARATORY COMMITTEE

To implement its policy of affiliating itself with other allied unions with the prime object of widening its activities, the Union took part in the National Preparatory Committee for the formation of the National Union of Federation Students. In the recent National Preparatory Committee meeting held in Kuala Lumpur, the Union's delegation consisted of:

1. Che Wan Mahmood bin Wan Idris—Leader.
2. Che Ismail bin Ahmad.
3. Mr. Tan Peng Hock.
4. Mr. K. Umopathy.
5. Che Hashim bin Abdul Wahab.
6. Che Mahaidin bin Ulong Shabaan.

The Union is one of the two which comprise the working committee for the National Convention. The members representing the Union in the working committee were:-

1. Mr. Tan Peng Hock.
2. Mr. K. Umopathy.
3. Che Hashim bin Abdul Wahab.

GENERAL

By incessant requests to the College authority, the Students' Council have accomplished to a certain degree to secure better study and living conditions and facilities for students.

a) **Library**

The Library though in its temporary building is a definite improvement in that it provides a better and bigger room for study than the former one.

b) **Sleeping Berths**

Through the Union's request, students are now provided sleeping berths together with their railway warrants. Allowance for bringing bicycles to the College by train are also granted.

c) **Furniture**

Through the precedence set by former years' Students' Council, students are now benefitting the complete set of new wardrobes and spring beds supplied to all dormitories. Our request for the supply of mattresses and pillows have been approved and we are awaiting for their arrival in the near future.

d) **Increase allowance**

Perhaps the highlights which have sparked comments from the local newspapers and arouse interests from the public were those concerning the Unions' demand and that of the Technical College Students' Union for an increase of students maintainance allowance from \$85/- per month to \$120/- per month. The Union have sent a memoranda to the Government concerning the increase and we hope that a favourable result is forthcoming by academic year 1958/59.

ACKNOWLEDGEMENTS

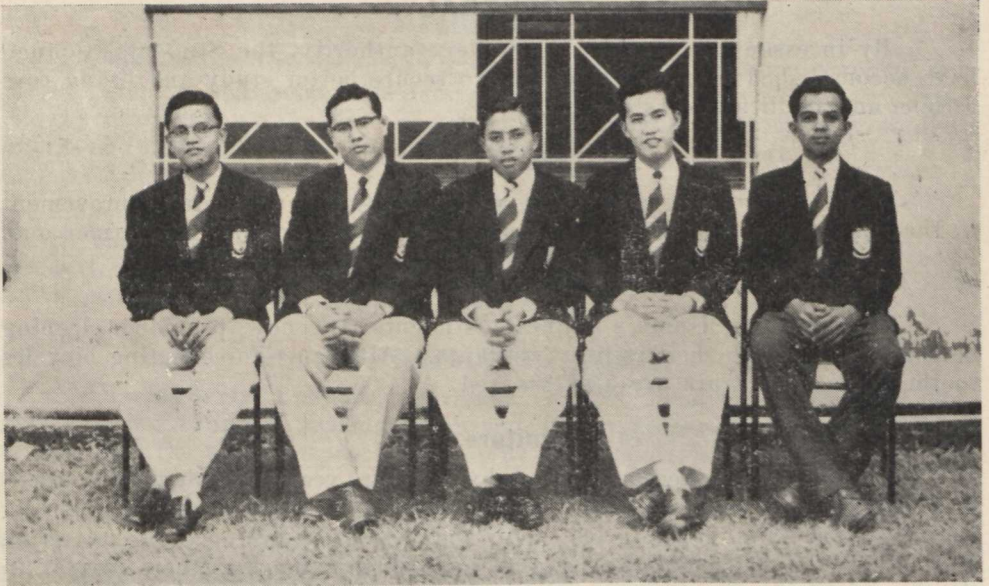
The Students' Council appreciates the excellent work done by the various standing committees and sub-committees and wishes to record here its sincere gratitude to them for the hard work they have done and the good co-operation they have shown in the running of the Union. The Students' Council also wishes to express its gratitude to the Acting Principal, Mr. Chew Hong Jung for his continuous help and guidance given to the Union in all matters concerning students' interests.

KHAIRI BIN HAJI MOHAMED,

Secretary General,

College of Agriculture Students' Union.

C.A.M.



STUDENTS' FINANCIAL COMMITTEE (1957-58)

(L. to R.): Che Ismail bin Hj. Othman, Che' Baharom bin Mohamad, Che Wan Mahmood bin Wan Idris, Mr. Chin Kim Wah, Che Mohd. Shah bin Hj. Lassim.

THE FINANCIAL COMMITTEE 1957/58

The members of the Financial Committee are as follows:-

Chairman	...	Che Wan Mahmood bin Wan Idris.
Secretary	..	Che Baharom bin Mohamed.
Committee Members	..	Mr. Chin Kim Wah.
		Che Ismail bin Hj. Othman.
		Che Mohd. Shah bin Hj. Lassim.

The three Committee Members were appointed by the Students' Council during the First Executive Meeting. The Committee had many meetings during the last two financial terms to discuss matters concerning the financial position of the Union, and also to draft out the estimate budget for the year 1957/58.

On the whole, the Committee was able to function efficiently with the full co-operation of its members.

ESTIMATED BUDGET FOR THE FINANCIAL YEAR 1957/58

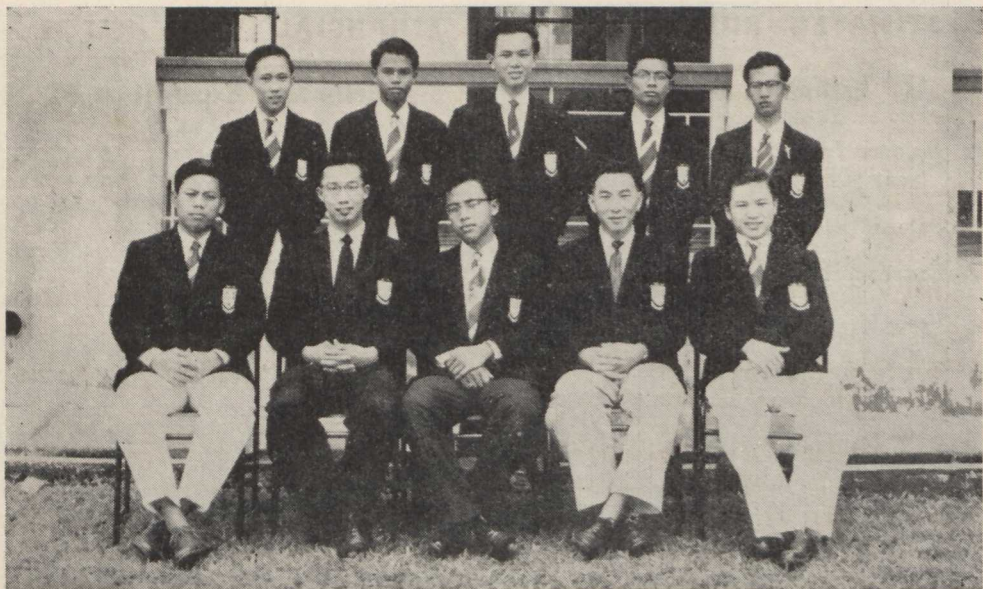
Estimated Income		Estimated Expenditure	
By Balance from the previous year	\$ 215.52	To Union Secretariat	\$ 130.00
„ Sale of Kitchen Scraps	27.00	„ Sports Committee	1,556.00
„ Entrance Fees	135.00	„ Lit. & Social Committee	365.00
„ Fees for Two Terms	804.00	„ Financial Committee	3.00
„ Govt. Contribution to purchase sports materials	1,500.00	„ The Delegates for the N.C.P. Conference	60.12
„ Cash in Bank	54.69		
	<u>TOTAL \$2,736.21</u>		<u>TOTAL \$2,114.12</u>

Total Income \$2,736.21

Total Expenditure 2,114.12

\$ 622.09

BAHAROM BIN MOHAMED,
Financial Secretary, C.A.S.U.



STUDENTS' WELFARE COMMITTEE (1957-58)

SITTING (L. to R.): Che Mohd. Yusoff bin Hashim, Mr. Tan Kwang Jin, Che Halim bin Mohd. Hassan, Mr. Chen Pershing, Mr. Wan Chee Keong.

STANDING (L. to R.): Mr. Tan Peng Hock, Che Qamaruzaman bin Ismail, Mr. Phang Ah Kow, Che Abdullah bin Yunoss, Che Mohamed bin Ismail.

STUDENTS' WELFARE COMMITTEE 1957/58

The office bearers of the Students' Welfare Committee are:-

Chairman	..	Che Halim bin Mohd. Hassan.
Hon. Secretary	..	Mr. Wan Chee Keong.
Hon. Hostel Secretary	..	Mr. Chen Pershing.
Hon. Asst. Hostel Sec.	..	Mr. Tan Kwang Jin.
Hon. Secretary and Treasurer Relief Fund	..	Che Mohd. Yusoff b. Hashim.

Dormitory Representatives:-

Burnett	..	Che Qamaruzamman bin Ismail.
Faulkner	..	Che Abdullah bin Yunos.
Belgrave	..	Che Mohamed bin Ismail.
Tempany	..	Mr. Phang Ah Kow.
Voelcker	..	Mr. Tan Peng Hock.

With new blood infused into the Committee this academic year, 1957/58, work began smoothly at the beginning of the First Term, but at the end of the month we were faced with a deficit shown on the Students' Account. From then onwards our main problem was how check and cover up the deficiency before the next Academic Year crops up. The Registrar and Bursar suggested that the students should pay \$1.60 per student day, an increase of 10 cents, to even things up but the Committee, thinking that the problem could be solved, adopted the 'wait and see policy'. As months rolled by we found that the deficit has doubled: giving the Committee no choice but to increase the rate as suggested by the Registrar and Bursar. With this increase, students now find it hard to balance up their accounts from the \$85/- after deducting catering charges.

Hostel. The total enrolment is 67 which is 23 short of last academic year's as the Certificate Course Students have already moved to the various new Schools of Agriculture established recently. Thus, the problem of cramming up the students in the five dormitories have been solved. The hostel has its share of joy too, during the Merdeka celebration as the very old 'bunks' were replaced by spring beds and well furnished cupboards took the place of shabby-looking lockers and shelves. Thus, the hostel was given a new 'Merdeka look'. A few students still retained the old bunks as they found that weight was too much for the new beds. Anyway, we thank the the authorities for refurnishing the hostel.

The Committee once again failed to get the water tanks installed in the upper dormitories. This failure on the part of the Committee has caused much inconvenience to the members of the dormitories concerned especially in the morning when all bathrooms are in full operation. Nevertheless, this will not go for a very long time more as the authorities have promised to do the installation in the next academic year.

The First-Aid box was given a new coating and equipped with new prescriptions. With these new additions the Committee hopes that the First-Aid box will be made accessible at all times to students.

Kitchen. There were a few changes involving kitchen staff and crockeries. A woman cook has been added to the all men cast. With her presence in the kitchen, we hope that the flavour of our meals will be greatly enhanced. A notable improvement was seen by the introduction of food covers for all tables in the dining hall. The authorities have promised to renovate the kitchen in due course.

We would like to mention here that vegetables supplied by the College's Vegetable Garden have greatly reduced our catering charges and we are looking forward to the day when we don't have to buy vegetables from outside at all.

Relief Fund. Only thirty-four students, which is half the total enrolment, contributed towards the fund. But we cannot blame the students for their poor support as the present allowance they are receiving from the Government is hardly enough for them to meet their needs. Till the end of January, 1958 the fund has totalled \$1,003.86. This is a big sum compared to the number of students contributing towards the fund. During the year only one student borrowed an amount of \$30/- on an urgent need but refunded it within one month of loan. Of the thirty-four students contributing Burnett Dormitory has the highest number, twelve students with an amount of \$431.80.

General. The Committee after long discussion and much thought decided not to reopen the Students' General Store. We regret that this action has to be taken but from past experience we found that it has not done very much to assist the students. We hope the authorities will do more spraying in the dormitories and kitchen to check the influx of flies and destroy their breeding places. We welcome the introduction of the contract system of food stuffs by the authorities at the beginning of the Third Term. With this, the Committee believes that the catering problems will be greatly reduced.

We extend our thanks to the members of the Students' Union, Acting Principal, Registrar and Bursar and the Hostel Superintendent for the full co-operation and advice, without which the smooth running of the Committee would not have been possible.

WAN CHEE KEONG,
Honorary Secretary,
Students' Welfare Committee,
College of Agriculture, Malaya.



SPORT COMMITTEE (June 1957—February 1958)

SITTING (L. to R.): Che Ahmad bin Johari, Che Md. Yussof bin Thamby, Che Ismail bin Ahmad, Che Abdul Jabar bin Md. Kamal, Mr. Mok Chak Kim.

STANDING (L. to R.): Che Talib bin Majid, Che Hashim bin Abd. Wahab, Mr. Ong Boon Ho, Che Zainal Abidin Ahmad, Che Nainy bin Awak Chik, Mr. Liew Nyuk Phin.

SPORTS ROUND-UP

(June 1957—February 1958)

Chairman	.. Che Ismail bin Ahmad.
Sports Secretary	.. Che Mohammed Yusoff bin Thamby.

CAPTAINS

Soccer	.. Mr. Mok Chak Kim.
Badminton	.. Che Nainy bin Awang Chik.
Athletics	.. Che Talib bin Majid.
Tennis	.. Che Zainal Abidin bin Ahmad.
Table Tennis	.. Che Hashim bin Abd. Wahab.
Hockey	.. Che Ahmad bin Johari.
Volley Ball	.. Che A. Jabar bin Mohd. Kamal.
Indoor-Games	.. Mr. Liew Nyuk Phin.
Body Building	.. Mr. Ong Boon Ho.

This academic year, as far as games are concerned, has proved to be a very encouraging one. Much keenness and enthusiasm were shown by members who practised regularly in every game. In the early part of the

Academic Year we participated in the Sungei Besi District Games Competition. Unfortunately, we were unable to compete in the final as many of the players were returning home for the first term vacation. The College bus provides us transport thus enabling our members to have frequent sports and games tours.

Many friendly matches were arranged but only a few were played because we were rather occupied. However, we hope to play more friendly matches during the final term.

Soccer. With the coming of a few promising players and also the keenness shown by last year's players our soccer team is comparatively strong. Several friendly matches were played and the results are as follows:-

College vs. Schools of Agriculture, Serdang.	Won (Home).
College vs. Varsity of Malaya, Kuala Lumpur.	Won (Away).
College vs. Sungei Besi Boys' School.	Lost (Home).
College vs. Federal Experimental Station.	Lost (Home).
College vs. Sungei Besi Police.	Draw (Home).

Badminton. With the addition of three new members our team is as good as ever. We participated in the Sungei Besi District Merdeka Badminton tournament but were unable to complete owing to our First Term Vacation.

Hockey. Much keenness was shown in this game and in spite of bad weather we managed to have regular practices. The Inter-Dormitory Championship took place during the Second Term and in the final, Voelcker dormitory beat Burnett Dormitory.

Four matches were played with outside teams and the results are as follows:-

College vs. Varsity of Malaya, Kuala Lumpur	0—0 Draw (Away).
College vs. Kajang High School.	0—0 Draw (Away).
College vs. King George V School, Seremban	1—1 Draw (Away).
College vs. Klang High School.	4—1 Won (Away).

Table-Tennis. We started the Academic Year enthusiastically, though with the loss of some of last year's promising players our team was considerably weakened. However, we participated in the Sungei Besi Merdeka Games Competition held at our College and met with little success. During the Second Term the game was totally neglected as the table-tennis room was turned into the College Library. Members resumed their practices in one of the lecture rooms during the final term.

Tennis. Many members have shown great interest in this game and regular practices were held. As the court was still under repair members had to abandon the game for the moment.

Indoor-Games. Members are always playing games such as carrom, chess and draught in the common-room during their leisure hours.

Body-Building. The response to this form of sport was rather encouraging and as a result more weights were bought.

Volley-Ball. Though new to the College this game received good response from the members. Voelcker beat Burnett by two games to nil in the Inter-Dormitory Knock-Out Competition.

Athletics. With the departure of two members of the College Relay Team our team was greatly weakened. However, we managed to put up a team to represent our Collge at the Varsity of Malaya, Kuala Lumpur Sports Meet recently.

Tournaments. Open individual championships in various games were held and the results are as follows:-

Games	Champions	Runners-up
Badminton.	Singles— Liu Chang Lan.	Talib bin Majid.
	Doubles— Liu Chang Lan and Wan Chee Keong.	Nainy bin Awang Chik and Phang Cheng Chong.
Table-Tennis.	Singles— Chan Yik Kuan.	Ismail bin Ahmad.
	Doubles— Ismail bin Ahmad and Hashim bin Abd. Wahab.	Philip Yeoh and Abd. Jabar bin M. Kamal.
Carrom.	Singles— Tan Yean Keng.	Ismail bin Hj. Othman.
	Doubles— Tan Yean Keng and Harun bin Abd. Manan.	Hoesni bin Abu Bakar and Baharom bin Mohamed.

There was a tie between Voelcker and Burnett in the final of the Inter-Dormitory Knock-Out Competition.

Acknowledgements. I would like to thank all games captains with whose co-operation everything was run smoothly and efficiently. We, the members of the Sports Committee, further extend our thanks to Che Khalid bin Abdul Rahman for the considerable help and advice he has given us in the Sports Activities of the College. Last but not least, we would like to thank the Hon. Mr. Leong Hoe Yeng, the Chairman of Rubber Producers' Council, who has kindly donated a challenge cup for the Inter-Dormitory Football Championship.

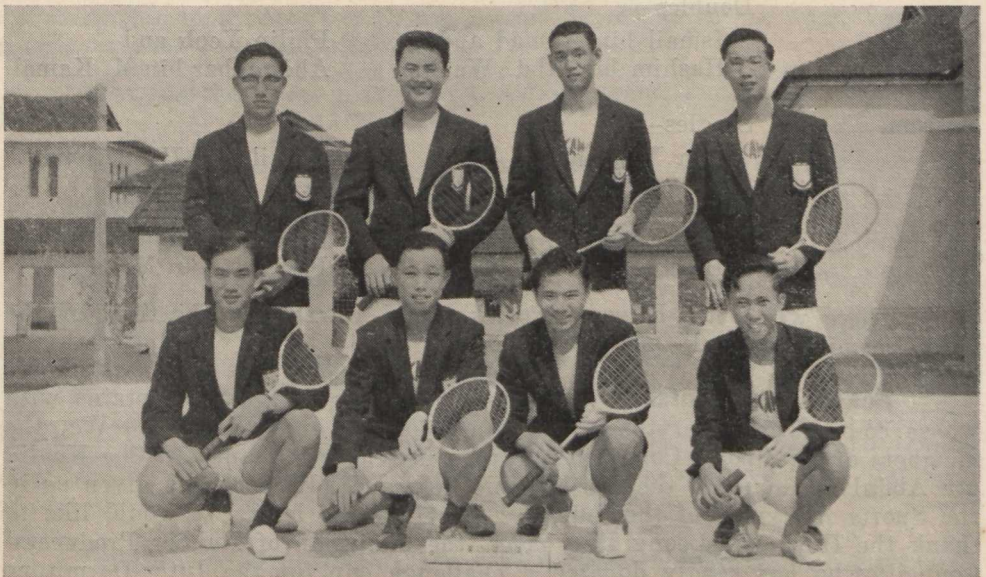
MOHAMMED YUSOFF BIN THAMBY,
Sports Secretary,
College of Agriculture, Students' Union.



COLLEGE SOCCER XI

FRONT ROW (L. to R.): Mr. Mok Chak Kim, Mr. Tan Lay Soon, Che Talib bin Majid, Che Ahmad bin Johari, Che Zainal Abidin bin Ahmad, Che Harun bin Abd. Manan.

BACK ROW (L. to R.): Mr. Wan Chee Keong, Mr. Chen Ko Ting, Che Hashim bin Abd. Wahab, Mr. Thien Thau Shen, Mr. Ong Boon Ho, Mr. Liew Nyuk Phin, Che Ahmad bin Darus, Che Abd. Jabar bin Mohd. Kamal.



COLLEGE BADMINTON TEAM

FRONT ROW (L. to R.): Mr. Chen Ko Ting, Mr. Phang Cheng Chong, Mr. Wan Chee Keong, Mr. Tan Peng Hock.

BACK ROW (L. to R.): Che Nainy bin Awang Chik, Mr. Liu Chang Lan, Mr. Mok Chak Kim, Mr. Tan Kwang Jin.



COLLEGE HOCKEY TEAM

FRONT ROW (L. to R.): Mokhtar bin Tamin, Zainal Abidin bin Ahmad, Ahmad bin Johari, Wan Chee Keong, Talib bin Majid.

MIDDLE ROW (L. to R.): Tan Lay Soon, Harun bin Abdul Manan, Abd. Ja'bar bin Mohd. Kamal.

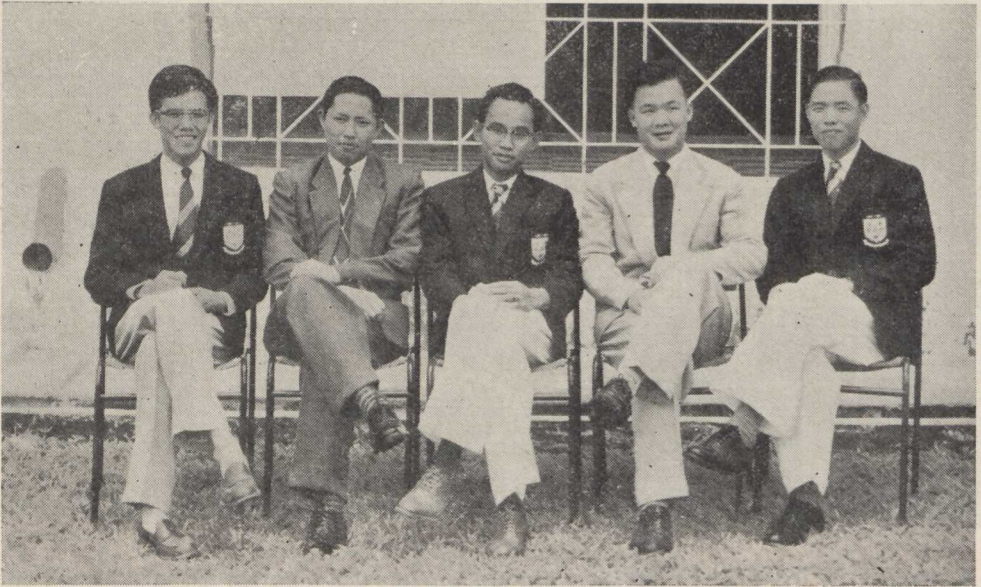
BACK ROW (L. to R.): Baharom bin Mohamed, Mohd. Nordin bin Mohd. Ramly, Mok Chak Kim.



COLLEGE TABLE-TENNIS TEAM

SITTING (L. to R.): Mr. Yeo Ewe Teik, Che Zainal Abidin bin Ahmad, Mr. Mok Chak Kim.

STANDING (L. to R.): Che Ismail bin Ahmad, Che Hashim bin Abd. Wahab, Mr. Chan Yik Kuan, Che Abd. Jabar bin Mohd. Kamal.



THE LITERARY AND SOCIAL COMMITTEE

(June 1957—February 1958)

(L. to R.): Che Wan Malek bin Wan Muhammed, Che Hoesni bin Abu Bakar, Mr. Thien Thau Shien, Mr. Lim Cho Yam.

THE LITERARY AND SOCIAL COMMITTEE

(June 1957—February 1958)

Chairman	..	Che Ismail bin Ahmad.
Lit. & Social Secretary	..	Che Hoesni bin Abu Bakar.
Film Secretary	..	Mr. Lim Cho Yam.
Librarian	..	Wan Malek bin Wan Mohammed.
Committee Member	..	Mr. Thien Thau Shien.

The smooth running of various functions and social activities held throughout the year was very much due to the whole-hearted support and hard work from the Committee Members themselves coupled with good understanding and full co-operation given by the members of the Students' Union.

In fact this year the Committee held quite a number of functions which kept the members busy throughout the three terms. The most interesting and striking events were the Termly Gala Dances held at the

beginning of every Term. The first Social Dance of the Academic Year 1957/58 was held in July in honour of the new students. It was a very successful occasion and the Dance ended quite happily. Judging from the keenness and interest given by the members during the occasion, it was decided that more of these Social Dances be held in order to keep the members fresh and lively and to a certain extent to relieve them from the dull, monotonous routine work. Since distance and environment play a very important part in the Students' life at the College, this is the best way of ensuring harmonial external relationship.

The Second Term Social Dance was held on the 6th October, 1957. No doubt the Dance was held in a hasty manner, due to short notice, but through the help of many members, the Committee was able to pull it through and made it a success. During the Final Term, the Committee organised the last Termly Dance of the year. Since there would be many Social Dances and private parties held by the various societies and members of various dormitories during the Term, so the Committee took the opportunity of holding the Social Dance much earlier at the beginning of the Term. The support contributed by the members was greatly appreciated and it attracted the biggest crowd. Throughout these three Dances, the Committee managed to engage the best band in the town.

A trip was made to Port Dickson during the First Term, and every body took a dip in the cool, blue water and joined in the fun. Another interesting trip was made to Frasers' Hill and members had the chance of visiting some places of agricultural interest. The screening of cinema shows, was held once a week. Quite a number of films have been borrowed from various firms and organisations in order to have a variety of shows.

In conclusion, the Committee takes great opportunity in thanking the Principal, staff, and members of the Students' Union for their generous donations which enabled the Union to hold many successful functions. Last but not least to the Agricultural Bias Society for its generous monetary contribution.

HOESNI BIN ABU BAKAR,
Literary and Social Secretary,
College of Agriculture, Students' Union.

THE AGRICULTURAL BIAS SOCIETY (1957/58)

THE EXECUTIVE COMMITTEE

President	..	Che Ahmad Basir bin Haji Ibrahim.
Vice President	..	Che Wan Mahmood bin Wan Idris.
Hon. Secretary	..	Che Khairi bin Haji Mohamed.
Hon. Treasurer	..	Mr. Tay Meng Kwang.
Editor	..	Mr. Tan Yean Kheng.

THE EDITORIAL BOARD

Editor	..	Mr. Tan Yean Kheng.
Secretary	..	Che Khairi bin Haji Mohamed.
Sub-editors	..	Mr. K. Umaphathy. Mr. Yeoh Ewe Teik. Mr. Teo Ban Kiat.
Business Managers	..	Mr. Chan Yik Kuan. Mr. Tan Soon Cheng.

The 1957/58 Academic Session witnessed the Fourth Year of the existence of the Society. With the increasing age and the experience accumulated the year saw a step forward in the progress and expansion of the Society.

The objects of the Society are:-

- a) To promote and create a general interest in Agriculture among the public and all institutions in the country through the dissemination of Agricultural news and views.
- b) To encourage discussions on topics of Agricultural interest among its members.

This is a year with the largest enrolment of sixty-four members. This response shown by the members for enrolment of membership at the beginning of the year was due to the popularity of the Society's achievements last year and to the sound financial standing which would enable the Society to launch greater activities. Our proposed major activity for this year was the holding of an educational tour to Indonesia. The response was good and the preliminary preparations were under way. But, unfortunately, internal situations in Indonesia was, and still is, unfavourable for us to carry out our proposed tour. So the idea was abandoned.

To replace the proposed tour with another one was a difficult task as time was running short and many senior members who were in the position financially to participate were not able to do so owing to the external examination which they were sitting in November. Many junior members who had the time were financially weak to carry out the tour successfully.

THE SERDANG SUN

There was no first term publication of 'The Agricultural Bias' owing to poor organisation of the Editorial Board and the resignation of the Editor. As a result, the present Editor was appointed to his post from the position of sub-editor by the Executive Committee at the end of the first term. Work on the publication started vigorously early in the second term resulting in a very worthy production with a record sale and profit. Our not being highly optimistic of the sale was proved wrong as we received orders of about 1,000 copies exceeding the amount we printed. The Editor and members of the Editorial Board must be given credit for this splendid work. To encourage more members to contribute articles to the organ, prizes were awarded for the five best articles submitted for the third term publication.

Social evenings were held termly. In the second term, an open air Satay Party was held successfully under the bright moonlight with musical entertainment by Raja and his Trio. In the Third Term, an even bigger function, that of an open air satay party followed by a dance, was held with the best band in town in attendance. In this we are proud that the satay were made by ourselves to the very last stick. The Society is indeed grateful to Che Khalid bin Abdul Rahman, the Senior Lecturer, and his wife for the instructions they gave us in the technique of satay-making; a branch of domestic science which may prove invaluable to Agriculturists!

A sum of fifty dollars was donated to the Students' Union of the College of Agriculture, in the Second Term to assist the Union which had to hold a social function under unexpected circumstances.

The Society is in a fairly sound financial standing due to the profit made during last year's A.B.S. Dance held in aid of the Society's Fund, to the regular subscription collected and the profit made in the recent production of our termly organ. This should justify the launching of worthy activities which should conform to the objects of the Society. Although such activities would be idealistic in the dissemination of Agricultural interests, it must be realised, however, that members responses to them in the past were not encouraging. For a useful project to be carried out for the benefits of all members, it is not merely the office bearers who should take particular part in it. The keenness should be shown by all members. Only then would the office bearers see the feasibility of such projects and be encouraged to attempt the more ambitious ones.

During the course of the year the Society had the pleasure of entertaining some overseas students from Australia, Indonesia, Thailand and Sarawak. Topics of common interest and student activities, were discussed informally. The Society wishes to extend its gratitude to all members, especially the senior members who will be graduating, many of whom had done very much towards the progress of the Society and had made the name of the Society to be known by the general public, and last but not least, to the College authority who had always done its part in helping the smooth running of the Society.

KHAIRI BIN HAJI MOHAMED,
Hon. Secretary,
Agricultural Bias Society,
College of Agriculture, Malaya.



1. Get one for me. 2. How is it going?. How is it going? 4. Raja and his Trio.
 5. Promising agricultural technicians—at the F.E.S. Workshops. 6. Bud grafting
 is not so difficult after all. 7. Husking coconut for the Copra Kiln. 8. Demon-
 stration on the “Weeder”. 9. South Tour—Singapore Botanic Gardens.



10



11



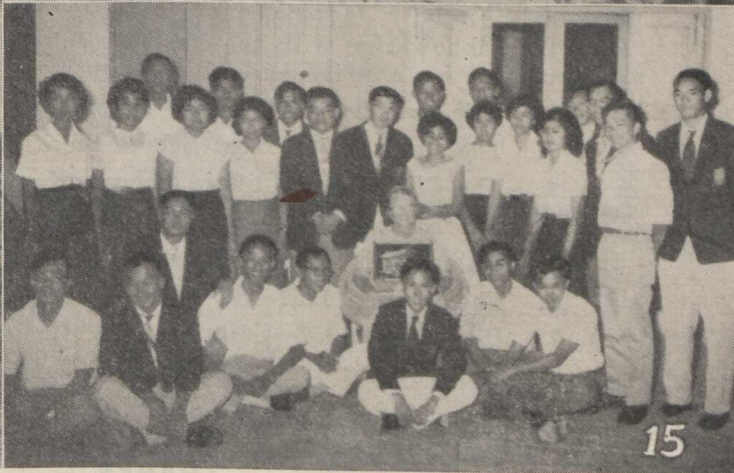
12



13



14



15

10. At one of the outings. 11. Transplanting padi seedlings. 12. Gathering valuable information. 13. Conducting visitors at the Hydroponics. 14. Future AAs at Work. 15. Goodwill visit to Kasetsart Agricultural University, Bangkok.



16



17



18

16. "Just up there!"—Dept. of Information, Malaya.
 17. Field work time.
 18. "Eager students tearing deceased plant"—Dept. of Information, Malaya.

ACKNOWLEDGEMENTS AND THANKS

We acknowledge with thanks the receipt of the following magazines and apologise for any inadvertent omission:-

1. Sulaiman School Magazine, Bentong.
3. The Bukit 1957—High School Bukit Mertajam.
2. The Cliffordian—Clifford School, Kuala Kangsar.
4. The Rafflesian—Magazine of Raffles Institution.
5. Malay Girls' College Magazine, Kuala Lumpur.
6. The Paulian 1957—St. Paul's Institution, Seremban.
7. Darulaman 1957—Sultan Abdul Hamid College, Alor Star.
8. The Voyager 1957—Magazine of Anglo-Chinese School, Ipoh.
9. The A.C.S. Magazine—A.C.S., Singapore.

THANKS

WE WISH TO THANK ALL OUR OLD BOYS WHO HAVE GENEROUSLY CONTRIBUTED IN MONEY AND KIND TO THE SERDANG SUN.

EDITOR.

OBITUARY

It is with deepest regret that we record the deaths of Che Mohd. Arif bin Abdul Rahman and Mr. John Chattaway, B.Sc., DIP. AGRIC. (CAMB).

Mr. John Chattaway passed away at the age of thirty-six while on leave in the United Kingdom. He joined the Department in 1949 and held a number of appointments in the Field, Agronomy Branches before joining the College as Senior Lecturer. He was a very hard worker and made many substantial contributions to the College of Agriculture. To his widow and three children we extend our deepest sympathy and most sincere condolences.

Enche Mohammed Arif, an Assistant Lecturer of the College died peacefully on the 23rd July, 1957 after a long illness. Before taking up his appointment in the Department of Agriculture in 1954 he was a Rubber Instructor in the Smallholders' Advisory Service of the Rubber Research Institute of Malaya. After a short service in the College of Agriculture he was awarded a Colombo Plan Fellowship to New Zealand for a study on the poultry husbandry of that country. As a lecturer he was a ready worker and his absence is greatly felt by the students. To his widow and children we extend our deepest condolences in their sad bereavement.

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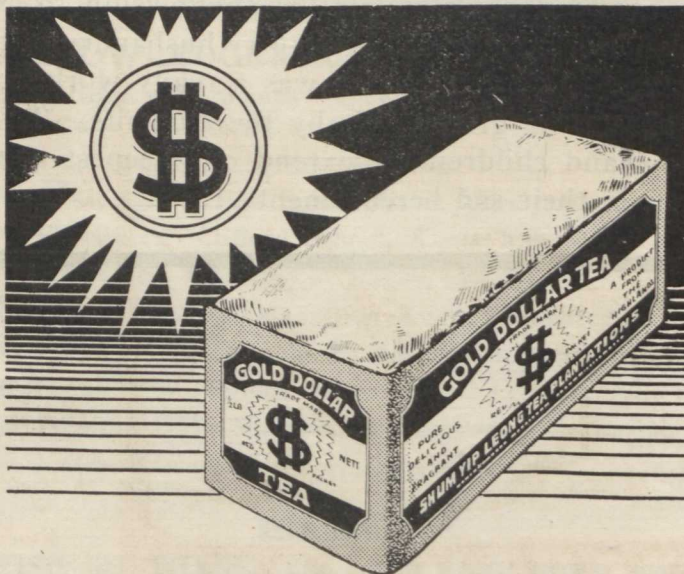
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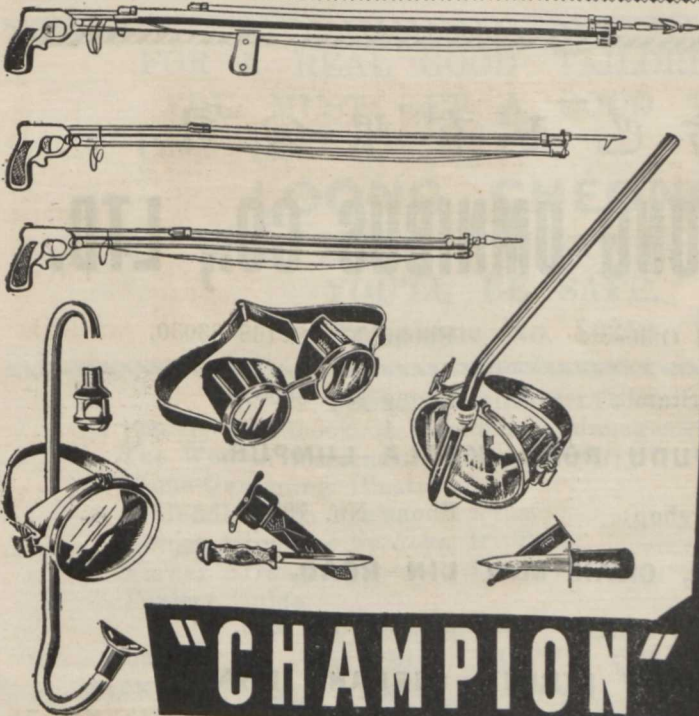
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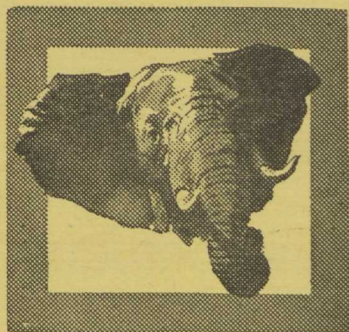
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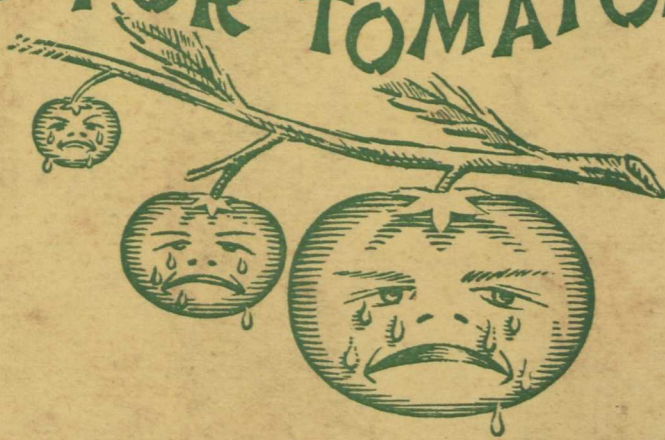
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