

My Alma Mater The College of Agriculture

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FARMING AND COOPERATIVES' principal mission is to promote efficient farm management as a basis for a more progressive and stable Agricultural Production. The economic factors and the business principles involved in agricultural production are obviously the main problems of our present day Agriculture. A sound knowledge of agricultural economics is essential to the building up of policies. If Los Baños is to continue as the training ground of leaders in Agriculture as it has been in the past, and maintain itself as an influence in progressive policy determination of the country, its future graduates must be better grounded in rural economics, farm management, mechanized agriculture, and cooperative principles and practices. These are the tools leaders must have to meet modern conditions. Chemists, breeders, pathologists, entomologists, plant physiologists, and other agricultural specialists, are needed in greater numbers than ever before and Los Baños must continue in its mission of producing them in quality as well as quantity. The country needs and urgently, practical progressive farm managers, resourceful rural teachers for extension service, managers of farmer's cooperatives, farm mechanics, inventors of labor saving devices and agricultural economists, to serve the government in policy determination and adjustment program building. Los Baños cannot be indifferent to this demand. The conditions obtaining at present and the economic demands of today are different from those of 1909 when the college was established.

FARMING AND COOPERATIVES advocates as a general principle the adjustment of the curriculum of the Los Baños College to provide greater facilities for practical training in farm management, agriculture machinery, cooperative stores management and general rural economics. Los Baños has numerous alumni in the field whose practical experience can be of inestimable value in formulating a suitable curricula.

No efforts should be spared to make this adjustment quickly and as nearly conforming to the needs of the country as possible.

While we do not subscribe in full to the details proposed in the following article, we commend the whole article to the authorities concerned and suggest that a body be set up at once to formulate the changes. Here is a good example of the earnestness of the Los Baños Alumni for the welfare of the Alma mater and the Nation.

FARMING AND COOPERATIVES welcomes suggestions from other Alumni.—(EDITOR'S NOTE)



Have you heard of Maria Makiling? Even Dr. Rizal could not ignore her charms for he wrote about the legend of the muse and keeper of Mount Makiling, that beautiful mountain that rises about 3,000 feet above Laguna Lake. As they say, Maria Makiling is a beautiful woman, slender, clear complexioned, with beautifully thick deep black hair that floats in the winds as she passes by. Her voice could be heard calling her loved ones, the forest

animals within her forest domain, like a deep moaning sound. Legend has it that she is a very jealous person and even the farmers of the foothills of Mount Makiling are protected by her. She is, as Dr. Rizal described her, the spirit of Mount Makiling.

Nestling at the foot of this beautiful and legendary mountain, about three kilometers from Los Baños and the shores of Laguna Lake, is the College of Agriculture of the University of the

Philippines, claimed as the outstanding Agricultural Educational institution in the Far East. This was where I obtained my education—my Alma Mater. Not only is it my Alma Mater but I consider it also my home, for I practically grew up in this valley of beautiful greens. My youthful days were spent here, the best part of my formative years. It is very close to my heart and I am proud of it.

And like legendary Mount Makiling, the College of Agriculture also has its story and legend. The "Los Baños Spirit" is well known among the colleges of the University and former American Governors General and High Commissioners have talked of it and praised it. Whether on the campus, in the classroom, in the field working, on the athletic field or at dances and parties, this spirit of Los Baños—courage, loyalty, helpfulness and determination to succeed in whatever they do, however small the undertaking maybe, is an integral part of every Aggie. This spirit was demonstrated on Oct. 10, 1917 during the first World War when Aggie boys answered the call of the country by volunteering for service in the armed forces en masse. In remembrance of this occasion the college celebrates on the 10th of October its Loyalty Day.

Perhaps this spirit has been in some way due to the founder and first dean of this College—Dr. Edwin Bingham Copeland — that tall bewhiskered elderly athletic scientist, scholar, and above all, an agricultural philosopher. He was a combination of youthful vigor and enthusiasm mellowed by the wise and trained coordination of his alert brain and experience. He was student, brother, father, counsellor. He was Professor Copeland in the true sense of the word. To old Aggie graduates who knew him, he was and is still, Professor Copeland. For, if his teachings and counsels were sound

to a student in his class then, to those who had gone out in the world of men they were sounder still because one had tried and proved what he taught to be genuinely legitimate and correct.

Because of this spirit, nothing can separate an Aggie graduate from his Alma Mater. Los Baños has always a warm spot in his heart. Often it becomes an inspiration in his work. He is proud to know he is capable of healthy mental and physical work. For this love of his for his Alma Mater, he is sensitive and jealous of any criticism that may be thrown at the college. So, for this very reason, he would rather criticize or suggest anything for the betterment of his Alma Mater before any outsider criticizes it ahead of him. He feels it is his home and would put it to order himself.

In the light of the above premises, is it not felt timely that a change in its curricula be made? Isn't it the order of universities and colleges to revise or make changes in its curriculum every five or ten years to adapt itself to the changes of the times? If this is the normal procedure, then there is no time more appropriate to make the revision than now, when the College of Agriculture is starting again with nothing, after it had been destroyed by the brutal Japanese Army, when practically everything the College had built up all these thirty odd years in the form of findings in Agricultural Science, breeds of animals and poultry and plants have been lost.

As a matter of interest and study, let us glance at the B. S. A. (Bachelor of Science in Agriculture) curriculum. According to this program (University of the Philippines Catalog of 1940) a student in the first year, of a four-year course, carries 47 units for the whole year divided into 23 ½ units per semester of which Agricultural Chemistry I and Botany I have full 10 units each or 20 units in all. This is practically one-half of all the total units for the whole year. The balance of 27 units are divided into four other basic subjects and two required subjects (Military Science and Physical Education).

Botany I and Agricultural Chemistry I carry weekly each, two hours of lecture and six hours

of laboratory work. Botany I or General Agricultural Botany, is mostly drawings and descriptions of varied number of plants and technical experiments and their descriptions—in form, like technically prepared manuscripts. This is indeed very good and beneficial but also expensive and overburdens the student with too much paper work which consumes a lot of extra time. Could not Botany I be adjusted in such a way so that it carries the object result desired but with only 5 units? The same is true of Agricultural Chemistry I which is General Chemistry. There are too many experiments and paper work. If this too could be reduced to 5 units, then from Botany I and Chemistry I there would be a savings of 10 units. This could be applied to a new subject, "Principles of Farm Management" which may be designated as Farm Management I subject. This will compose both of lectures and farm work. The student will be given from the outset a good practical outlook in his studies. This new subject should take up the social science side of management, namely, ways and methods of handling laborers and tenants or farm employees based on the habits, customs and idiosyncracies of our different groups of farm workers, namely, the Tagalogs, the Ilocanos, the Visayans, the Bicolanos, the Moros. Coupled with these lessons should be the laying out of projects and the use of men in group work, giving the students basic fundamentals in farm division and distribution of work.

Sad to say, our farm problems in the Philippines have always been social. Unwise relationship between tenants and landowners, too many systems employed on farms have been foremost among the ills of agrarian disputes. Physical problems have always been inadequacy of land area cultivated by the tenants so that his income is always inadequate, lack of irrigation facilities, lack of good seeds and fertilizers resulting in poor harvest have been major points of disagreements between tenant and landowner. With this course, there will be evolved a more uniform farming practice thereby solving a lot of the question marks. It will be found also that basically, the answer will be practically the

same in all places and that is the application of more progressive farming methods so that the tenant farmer may be able to live a more decent life.

For those who wish to major in the department or whose aim is to be a technical man, let him take 10 units of Botany I and 10 units of Chemistry I.

In the second year or sophomore year, Plant Pathology or Diseases of Plants carries 5 units for the first semester. Experiments in Plant Pathology not being carried out on farms as a general rule, as farmers or landowners would secure the help of a plant pest man should his crop be attacked by diseases whether the farmer's or landowner's manager is an Aggie graduate or not, and if the disease becomes alarming government aid is sought for anyway, suffice that the student understands the fundamentals of diseases, their methods of propagation and infection and their corresponding cures necessary for their prevention and eradication. Could this subject not be reduced to 3 units and the 2 units saved be added to Animal Husbandry 2 which carries only 2 units? A more intensive and practical work on animal husbandry and poultry raising should be given students as animals and fowls are at present a big need of our country and they constitute during normal times a major Philippine industry and represent a big sum in Philippine imports. Why? Couldn't we raise enough for our needs at least through improved methods of raising animals and fowls? Couldn't we be as economical and advanced in our animal husbandry? More study in this line will help solve the problem.

In the second semester, again Chemistry. This time Chemistry 2 or Analytical Chemistry which carries 5 units. This course being too technical is not of much use to a farmer graduate except for one who would specialize in Chemistry or allied subjects. Wouldn't it be more practical to allow 5 units only to those who will major in the department or as elective or to those who will later take up Sugar Technology course? If 2 units could be clipped off Chemistry 2,

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writers. This is now the time to expose the economic possibilities of Palanan. This silent town is famous for its historical gifts, being the last stronghold of General Emilio Aguinaldo and the spot where the last Japanese soldier ended his military career. Why Palanan is always selected as the last stronghold of Oriental militarists is perhaps due to the peace loving inhabitants who are self sufficient in rice, meat and dairy, poultry, especially cockfighting roosters, fishes, coconuts, nipa and buri products, forest products and guano deposits. What is lacking in Palanan are good roads, steel bridges, ships and tractors.

Palanan is a place where drought is not known because of its numerous springs and waterfalls. In spite of its seclusion from the rest of the world, the inhabitants are satisfied with their economical life. Of course they long for the day to come when Port Bicobian shall be open to the big seaport and airport of the world. Port Bicobian being shielded from tidal waves and storms shall become the exit of ramie fiber produced by big investors direct to San Francisco, New York, London, Marseilles and Hongkong.



FACTS ABOUT RAMIE FIBER PRODUCTION IN OCCIDENTAL NEGROS

Abstracts from the 1941 SUGAR NEWS as written by Mr. Carlos Loecin of Victorias, Occidental Negros gives us the following data:

- 1—A ton of deleafed stalks 5 feet tall can be cut by 4 to 5 laborers
- 2—By contract, a ton of deleafed stalk 5 feet tall costs ₱3.00 yielding 0.79 picul of dry fiber.
- 3—Yields are in the order of 25-30 piculs of dry fiber per hectare per year.
- 4—Harvesting by hand costs around 4 pesos per picul of dry fiber. Stripping, washing and drying costs around 4 pesos per picul when decorticated on a 3/4 picul capacity machine.
- 5—The proportions by percentage from different products in the fresh deleafed stalks decorticated in a 3/4 picul capacity machine are as follows:
 Fresh Stalks 100%;
 Bark and Fibrous Tissue, 30%;
 Wet stripped fiber, 12%;
 Dry fiber, 5%
 Degummed fiber 3.7 (74% yield from dry crude fiber);
 Wood, 70%;
 Machine waste, 18%;
 Moisture, 7%;
 Gums, 1.3%.

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it might well be applied to Agronomy 2 (Philippine Field Crops) which carries 5 units to make it 7 units. Because this is a very broad subject and is a direct farm concern, it is justified to carry more units. However, this 2 extra units should be emphasized on truck gardening work. There is emphasis on Chemistry when farm work has very little problem along this field and if Chemistry problems occur, they are seldom if ever analytical in nature and extent. Should it occur, one does not have the facilities on the farm anyway so he takes it to the Bureau of Science or Bureau of Plant Industry. But sad to say, truck gardening is not taken up by Aggie graduates unless one majors in Agronomy. Yes, it is mentioned as a passing work in Agronomy required subjects. But truck gardening alone is an industry and requires special study and should be given more ground preparation in our College Curriculum. It is important now more than ever, to a farmer whose major produce is rice or sugar cane, or any main agricultural crop which require big areas to be profitable. He is in need of carabaos and implements for these major crops to be made as profitable as before. To them and to poultry farms, to hog farms, to fish farms, gardening is indeed a big help as a source of animal as well as human food and a good and quick source of extra income. And for those who have small parcels of land intensive truck gardening is more profitable than most main staple crops of the Philippines, as gardening can earn more per inch of land. It is therefore obvious, that truck gardening be given more attention and study at present.

In the third year, 1st semester,

again is another Chemistry subject. This time Agricultural Industrial Chemistry or Chemistry 15, carrying 5 units. At the same time, Entomology I or Introductory Economic Entomology, study of insects in other words, is taken up carrying 5 units. These two subjects no doubt have their importance but they carry too many detailed chemistry experiments and too many insect breeding experiments and insect field collections necessitating a lot of paper work. The time allotted to these two subjects is not enough to finish the entire requirements. A student has to devote many extra Sunday hours and spare time during regular days to be able to complete breeding and collecting insects. If 2 units could be clipped off Entomology I and 2 units from Chemistry 15 by minimizing experiments and paper work, it is believed that the student will not be less educated on the principal objectives of these two important subjects.

The 4 units saved could be very wisely applied to practical Engineering work which is not taken up in the offered regular engineering subjects. During the third year, the student has opportunity
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to take up Engineering work, a general knowledge of which is essential, for farming go hand in hand with Engineering study. Planning, building, repairing buildings and implements, drainage, irrigation, machine use, etc., are all ordinary farm work requiring an understanding of Engineering principles. As a matter of fact, in some countries there are degrees offered in their universities with the title of Farm Engineer, or Agricultural Engineer. But going back to our topic, in the regular Engineering subjects, Engineering I-a or Farm Mechanics and Engineering I-b, Farm Machinery, carrying 3 units each or a total of 6 units, nothing is mentioned about advanced findings on irrigation and drainage for example. The 4 units saved from Chemistry 15 and Entomology I, could be applied to a simplified Engineering subject on Drainage and Irrigation coupled with Farm Motors and Advanced Farm Machinery. This latter topic (Farm Motors and Advanced Farm Machinery) is offered in College as Engineering 103 only for students majoring in that department. The simplified new subject is very necessary at present to be incorporated in the regular course in view of the present tendency and future development of farming operations which is along the mechanization of farming. The application of labor saving devices, mass production methods, use of irrigation pumps and motors, use of mechanized planting, plowing, transplanting, harrowing, harvesting, threshing in case of palay, and other new farm implements and machineries which will be within the reach of small farmers, is not very far off. This is a natural precedence to our rehabilitation and industrialization progress. Our Aggie graduates should be prepared for this development.

In the fourth year or senior year, the student has a big stumbling block, thesis. As a matter of fact, many students are finished with the complete course without diploma because of absence of or disapproved or incomplete thesis. Many may have finished their

actual experiments but have failed in the writing of their manuscript. This is 10 units, the hardest 10 units in the whole course. This is indeed beneficial to the college and especially to professors because the approval of a student's thesis makes him with the adviser-professor a co-author in a scientific work which automatically becomes a reference for the college. The thesis also becomes the basis of future research work of professors. But the brunt of the work and sacrifice in time, energy, and money are born by the student should the thesis not be approved. Many students repeat their whole work entailing a delay of at least one semester and more often a year. Some students who are hard-up or those without source of support or income, forego the thesis and go ahead and work outside without diploma. Later, after they have saved a little money some go back to the college to finish the deficiency in their thesis and get their diploma.

To remedy this pitiable situation of the student, especially should it happen during these trying times, it is suggested that the thesis work be reduced to 5 units except for those who will pursue technical agricultural studies. The 5 units saved should be applied to 6 months farm practice on any Philippine farm or farming district, similar to the mill practice of senior students of the Sugar Technology course. The senior student from the south to be assigned to the north so he learns conditions there and students from the north be assigned to southern farms so that in this way, there is a better understanding of conditions outside ones own farm district.

When the student graduates and finds he could apply some of the beneficial aspects or conditions outside his farm district, he is familiar with them. Also, should a graduate work outside his farm district he is familiar with the people and farming practices in the other districts. Should he employ in his own farm districts men from the other districts, he is familiar in handling them.

The assigning of senior students in opposite regions should be made a general rule unless otherwise

desired by the student to go to his own district for particular special studies.

This farm practice is a further complement of the Farm Management I course in the first year suggested above. A rounded education in theory and practice is undergone by graduates. No old farmer can tell young supervisors they lack experience and knowledge of practical farm practices.

Under present circumstances, the college of Agriculture is in dire need of facilities and material for the need of students in their studies like poultry fowls, animals, seeds, plants, etc. It is suggested that all enrolling students at once organize themselves under the above suggested Farm Management course, into a Farm Management Club or Association and each contribute, let us say, a hen, another some seeds, or animals, and utilize part of the College building and land to operate this Farm Management Association as a paying organization. Under the guidance of the professors a detailed farm plant could be little by little established. The Poultry Building could be used as the Students Poultry Plant. The experiment station land and agronomy buildings could be partially assigned to this organization. In due time, the college would have enough poultry, seeds, plants and animals not from government aid but from their own efforts. "Los Baños College spirit" could come to the fore and build up the college from scratches and the students and professors would have done a patriotic job. Whatever is due the student in the form of invested hen, or seed, plant or animal, be paid him plus a certain amount of interest to be agreed upon by the organization when he graduates or leaves the college. Not only does the student get a first hand information and practical farm training, but he also gets an inside understanding of the economics of farm administration, laws, taxes, expenses, profits, etc.

To further promote a closer relationship among farmers in the immediate vicinity and influence their methods of farming and crops raised, there should be a program arranged like:

1. A monthly plowing and furrowing contest among stud-

ents and outside farmers held in the college fields with prizes to be decided by the students farm management association.

2. Monthly demonstrations of new seeds, plants, planting methods, new suggestions among students and outside farmers so that the college and farmers around the college, may be able to help one another and thereby derive mutual benefits.
3. In this way, the college may be able to influence the farmers around the campus at least to devote their time in more paying crops. All these years of the College of Agriculture, could we say that a Los Baños gabi, camote, cassava, ginger, main root crops of farmers obtaining around the college, are the best in the market because of the influence of the college? Calauan bananas are demanded in Manila markets but is it be-

cause of the influence of the College? Paete Lanzones is well known in Philippine markets but could we say it is because of the influence of the College? What crop could we mention, raised by Los Baños farmers, has acquired a name in the market because of the influence of improved seeds or method of raising it due to the College? The Los Baños cantonese and the college egg laying contest has had some publicity before but has the College interested the people in municipalities around the campus to go into it to help their finances? Are those raising poultry, specializing on this breed because the college has found them to be best adapted to Los Baños conditions?

If the people in the vicinity go to farming work, they look up to the college as a place to study not as a source of help to their farming practices in the small details which the college is in a position to give. There is an indifferent

attitude on both sides probably. Graduates of the college of Agriculture can not all be chemists, or botanists, or Agronomists, or entomologists, or pathologists, soil experts or farm engineers, but if a more even, a better balanced study of agriculture in theory and practice is afforded him, he goes out better equipped with the tools of his profession to work out his farm problems with better confidence and more ease. This is true whether he employs himself as a farmer, farm manager, agricultural teacher or government bureau employee.

The above suggested changes in curriculum would also afford the college professorial staff to work with more coordination in the teaching and presentation of their subjects so that one department becomes the complement of another. The work in the Farm Management Association would afford and prove a testing ground for the combined courses offered in college. It would also serve as a factor to better cement the relationship of teacher and student and the college organization as a whole and its neighbor farmers.

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