



April, 1954

GRADUATION ISSUE

"U. P. Beloved

U. P. Beloved, thou Alma Ma For thee united, our joyful voi Far though we wander o'er a Loyal thy sons we'll ever be. Loyal thy sons we'll ever be.

Echo the watchword, the red and green forever, Give out the password to the Hall of brave sons rare, Sing forth the message, ring out with courage; All hail, thou hope of our ilear land. All hail, thou hope of our dear land.

I think that I shall never see a poem lovely as a tree.

-Joyce Kilmer



Messages from



President Ramon Magsaysay



Speaker Jose B. Laurel

Secretary Salvador Araneta







U.P. Pres. Vidal A. Tan

Dean Felipe R. Amos



MALACAÑANG MANILA

MESSAGE

The economic life of the country cannot be completely appraised without taking into account the part played by our forests in its growth. This must be so considering that our forests are a rich source of forest industries and such being the case, they necessarily share identity with our economy.

Upon the graduates of the College of Forestry of the University of the Philippines in Laguna depends the conservation of our forests and, incidentally, the protection of our important forest industries. These men are unknown and unsung but like the others, they are equally the architects of national progress. Guardians of our rich and virgin forests, they must get their share of the credit due their profession for this phase of service to our Republic.

I am pleased to congratulate the graduates and the faculty members of the College of Forestry on their success. Our forests, I am sure, are safe in their capable hands.

BEPUBLIC OF THE PHILIPPINES HOUSE OF REPRESENTATIVES MANUA

OFFICE OF THE SPEAKER

MESSAGE

It is, indeed, gratifying to observe the growing interest among our youth in the exploitation and development of our forests, which represent one of the major sources of natural wealth in this country.

The significance of this choice is readily appreciated when we consider that our forests, vast though they may be, are as rich only as they are properly conserved and utilized, especially during this period of nation-building.

Today, as the U. P. College of Forestry completes another year of achievement, it is fitting to note, with not a little satisfaction, how its pioneering efforts have succeeded in emphasizing to our people the importance of our forests.

I am certain that its new graduates, equipped as they are with training as well as ideals, will also contribute much, like their predecessors, to the economic progress of our country.

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Republic of the Philippines Department of Ayriculture and Astural Resources Office of the Secretary Manila

MESSAGE

After four years of strenuous and conscientious struggle, maybe more, you have at last attained the goal of your muchcherished dream - graduation and with it your well-carned diploma. This is an important milestone in your life, but it is also a crossroad.

A wast horizon is before you. It is life itself. You are now to meet the world for what it is. You may find its realities differ from what you have learned from the books with all the hypothetical assumptions you may have thought of in classroom discussions transformed into facts and actualities. But never allow disappointments much less failures to discourage you in your quest for success or in the pursuit of your chosen prefession.

Our forest wealth supposed to be illimitable and inexhaustible, cannot remain to be so, if our own people continue the wanton destruction of watershed areas and the flagrant practice of the permicious kaifigin system.

In the re-education of our people in the wise use and conservation of our forest resources, and in the re-dedication of our national efforts towards a better forest utilization, you would soon play a vital role. A few years from now, many of you will undoubtedly share in the administration of our forests and forest resources. It is in this task that you will be tested and your success measured.

May the great traditions, therefore, of your beloved Alma Mater and the noble ideals for which it stands, inspire all of you to greater heights of endeavor.

And I wish you one and all Godspeed.

R ARANETA

Secretary of Agriculture and Natural Resources

UNIVERSITY OF THE PHILIPPINES QUEZON CITY

MESSAGE

My message on your graduation is an aggressive invitation to each and everyone of you to brace up and measure yourself against the set objectives of your College. I dare make the invitation because I feel sure that none of you would be wanting in the average requisites of a successfully graduated Forestry man, for the College of Forestry over its long history has been reasonably proud of its high standard of forestry education in the Orient.

No less than President Magsaysay himself in a recent public statement came out in full support of a wise utilization and conservation of our forest resources. The College has trained men not only in that specific line but has also encouraged scientific studies and research work needed for the better management, protection and use of our trees and other forest resources.

The College has long recognized the role wise forestry management plays in the economic and social development of the country. The increasing industrial and technological change surely and rapidly encroaching upon the agricultural level of culture of our country poses a challenge to you graduates of brawn and brain. You graduate into that challenge.

VIDAL A. TAN

President

March 12, 1954

UNIVERSITY OF THE PHILIPPINES COLLEGE OF FORESTRY College, Laguna

MESSAGE

Every year's Moving-Up Day should serve to remind you of the necessity of growth, physical, intellectual and spiritual, in a man's life, especially when he takes his place in the growing ranks of the country's professional men. It is the law of Nature that in the struggle for survival, growth is essential. Without it, decay sets in and eventually extinction. In life's race, one must keep abreast with the times, or else fall by the wayside. Men who have ceased "moving up" after graduation have failed not because they lack the intelligence and the training but because they failed to grow intellectually and spiritually. They have remained stagnant after their graduation and, unfortunately, oftentimes we hear them blame it on luck or on others, save themselves, for their failure in their chosen profession.

It is needless for me to stress the necessity of self-sacrifice, devotion to duty and patience in your profession. All thoughts of big material rewards should not enter your mind when you join the forestry fold. A materialistic and selfish man cannot be a good forester. Conservation and exploitation cannot go hand in hand if the latter fails to recognize the needs of posterity. When some of you will join private enterprises, you will meet a critical situation: when the principles of forest conservation openly clash with the perverted materialistic gauge of success which, these days, is the size of one's pocketbook. Although a lumberman, you must not forget that you were taught and trained a <u>forester</u>. You were trained to be foresters to conserve our forest resources so as to insure a permanent supply for the years to come.

We trust that you will not fail the faculty who have had a hand in your training, nor the nation which looks up to you for guidance in the conservation and proper utilization of our precious heritage, our forests.

March 9, 1954

. 1.

FELIPE R. AMOS Director of Forestry Dean, College of Forestry



College of Forestry Song

Men of the Forest we, With voices full and free, Sing of our Old Makiling And the School we love to see; We come from many a strand, But we'll united stand. In our purpose true, And the work we'll do For the great woods Of our native land.

We love the forests broad, Temples of Nature's God Teachers of hope and courage And of justice and brotherhood; Then raise our voices high, Faithful we'll live and die, To the friendship here That we hold so dear, And the service Of our Old P.I.

President Eisenhower's Address Before* The Fourth American Forest Congress

It is my very happy and very distinguished privilege this morning to extend to each of you a welcome on behalf of the Administration to your Nation's Capital.

The very character of your organization confers distinction upon anyone who may be invited before it. But you will realize that due to the number of conventions that meet in this city, there are, at times, staff discussions over in the White House as to whether or not they should send the President forth this morning to attend a meeting of this kind.

Now, in this particular case, entirely aside from my own desires and determinations, I assure you there was no question. It happens that my principal staff officer (Sherman Adams) is a forester. And there are two subjects of which I hear most. I think, when I am with him: New Hampshire and forestry.

I, of course, am not going to trespass upon your time to attempt a discussion of those professional and technical elements of your calling, of which you know so much more than I. It would be sheer presumption for me to mention them.

I should like, though, to speak of just one of those points in which I think our interests are so clearly identical. The interest of this Administration is to create a balanced but advancing economy and prosperity in this country.

Now, for any group of people who are engaged in the conservation of our resources —in the production of a product which may range anywhere from fifteen to eighty or ninety years—you are concerned directly and by reason of your profession with a steady rather than an intermittent and historicallike action in the advancing forces, the advancing tradition, of our economy. You deal more directly than most, I think, in futures —not merely a future of the day after tomorrow or who are we going to have in such an office, or what kind of activity will be going on in that place. You deal in decades, decades in the growth of your product, of the forests and the trees, and in the conservation of all those elements of our continent that make that possible.

Then again, when I think of the basic resource that is used so widely in clothespins and matchsticks, in ship-building and in construction, in the dissemination of news through the pulp industry, your interests again are not those that are confined merely to the forest. But when you go into the uses of your product, you are concerned with everything that touches the United States.

So is your government. Its purpose is to understand, if possible, the problems of every special group in this country, but never to use the resources of this country to favor any group at the expense of others—to attempt to get that kind of balanced progress that can be sustained, that will not create upsets in our economy.

So you can understand, of course, the interest we have in soil and water conservation.

When I first led an invading force onto another continent during the war, we went into northern Africa. It was difficult to be-

^{*} Held in Washington, D.C. October 29-31, 1953.

lieve that that area had once been the granary of the ancient world, that it provided the timber and almost all of the agricultural resources that were used in Italy and Greece and Sicily, and through those more heavily populated countries.

Today, in such vast areas, there is just a stretch of sand and desert. The civilization that supported the cities that flourished are gone—Timgad, probably one of the famous destroyed cities on the earth, and not far from the great city of Constantine.

That is the kind of thing that must never happen here. It is through the wisdom, the efforts, the dedication, and the devotion of such people as yourselves, that it will not happen. Too many of us are blind, or indifferent, or just completely ignorant of the facts that make that work so important.

So I think I can conclude with just this one word: I cannot tell you how much satisfaction it gives me to know that intelligent Americans are meeting together, whose interests are as broad as this land, whose vi-



sion must be projected forward not merely till tomorrow—or possibly an election—but for a century.

What is going to be the character of this country? Is it going to favor the individual as it favored us? Is it going to give him an opportunity? Is it going to have the resources to give him that opportunity? Or would we have to degenerate into some kind of controlled economy, some kind of regimentation of all of the heritage—of all the phases of our heritage that we have received—all of the God-given resources and privileges we enjoy?

I believe that every true American wants to pass on, without any stricture, the right of the individual to his own determination of what he is fitted for, of how he shall worship, of what he shall earn. of how he can save, and what he can do with his savings —subject to taxes. I should remark that even in such a crown of roses, as we know has always been the promise and the share of our beloved America, there still are some thorns—and taxes is one of them, I guess.

So again, as I bid you welcome, I also express this tremendous gratification that you are here for this Congress, this assembly. I wish you the greatest of success, and to each individual, God bless you.

They are not the best students who are most dependent on books. What can be got of them is at best only material; a man must build his house for himself.

Talent for talent's sake is a show and a bauble. Stranger, if thou has learned a truth which needs no school of long experience, that the world is full of guilt and misery, and has seen enough of all its sorrows, crimes and cares to tire thee of it, enter a wildwood and view the haunts of Nature. The calm shade shall bring a kindred calm, and the sweet breeze that makes the green leaves dance shell waft a balm to thy sick heart.—Bryant * * *

The difference between failure and success is doing a thing nearly right and doing it exactly right. * * *

Time is what we want most, but what, alas! We use worst.

MOVING-UP DAY ADDRESS*

Were I to follow the practice commonly observed by speakers on occasions such as this one, all I would have to do would be to recite a few select lines praising you for the happy ending of your college work. Of course, you are all entitled to congratulations, which I give you most cordially. But if now I wish to express a word of encomium, which you certainly deserve, it is not for your having completed an academic course, but because you have chosen a career which requires self-denial, sacrifice, and strong devotion to duty on your part, if your service is to be effective and fruitful.

You will be facing a task of gigantic proportions, a continuous and an endless task. Together with the foresters now in the field, you will be called upon to take care of eighteen million hectares of forests and timber land, whose estimated value reaches fifty billion pesos. Yours will not be a guardianship in the narrow meaning of the term. Yours is an undertaking of great significance. Its purpose is not merely to preserve a precious heritage, as would be the case of a sacred but sterile family inheritance. It is very different from that. Its fundamental and imperative objective is manifold: to keep a vigilant eye on an important source of our national wealth; to make it produce richly and in abundance; to prepare it for wise exploitation; and at the same time to preserve it as a permanent asset for generations to come. In other words, to create wealth and perpetuate it.

In order to successfully solve the diverse problems that you will find in the performance of your mission, you will have to put into play all that forestry science has taught you. New difficulties have been created by war, greater needs have arisen, that will require all your ingenuity to formulate more dynamic policies to meet new conditions. Nowadays, because of the devastation produced by the last world conflict, forestry has acquired a truly international importance, comparable to that of the production of tin or even oil. Universal recognition is given to its positive role in the world's economy. Thus we see that the United Nations, through the instrumentality of the FAO, has recently organized a conference on forestry and timber utilization in order to consider the critical fuelwood and housing needs in practically all the countries of the Far East.

The forest is and has always been essential to the economic stability of a country. If its preservation and development mean national prosperity and welfare, its neglect will spell disaster and misery. A case in point is Spain. There I have seen wide areas completely denuded of trees, pitifully barren and dry. And now she is suffering from the pernicious effects of the lack of foresight of her government and people in the past. We are fortunate that two scores and fourteen years ago an agency was created and entrusted with the responsibility of preserving one of the richest gifts with which our islands have been endowed by Nature. Despite the inadequacy of the means placed at its disposal, notwithstanding the insufficient initial training and number of its personnel, our Bureau of Forestry has done much creditable work.

But the importance of our forests does not simply lie in the products that they yield. They also serve to protect a great deal of the wildlife of the nation and furnish a proper

^{*} Address delivered at the Twelfth Moving-Up Day program of the College of Forestry, U.P. on Mar. 21, 1954 by the Hon. Manuel C. Briones, Pres. Pro Tempore, Philippine Senate.

setting for our national parks. In this present age when efforts are exerted in finding ways and means to lengthen the life span of man, wildlife provides necessary health and recreational opportunities and national parks stimulate our sense of beauty and help enrich our lives. They furnish avenues for a better utilization of our leisure. They attract tourists who are in search of the natural beauty of our country and of the scenic spots that make travel a pleasant adventure. The biological and scientific values of wildlife have been shown in the control of insect pests, the preservation of useful birds and animals, and the improvement of healthful living and sanitation. It is because of these facts that the Congress of the Philippines approved a law creating the Commission on Parks and Wildlife. But the purposes of this law would be seriously impaired if our forests and timberlands should be neglected.

It is true that the then small size of our population and the natural tendency of farmers to direct their eyes toward areas easier to develop, such as the abundant fertile plains and valleys, were mainly responsible for the present state of conservation of our still immense forest zones. Except in limited sections, they were still beyond the reach of the thoughtless activity of the "kaingineros." But the difficulties and hazards which foresters and rangers had to face in carrying out their duties were nonetheless exacting. Aside from the destructive operation of the forces or elements of nature, another detrimental factor had to be overcome: the carelessness of many and their ignorance regarding the paramount importance of not wasting our timber resource. It is gratifying to observe, however, that well informed opinion points with a sense of legitimate satisfaction and pride to the accomplishments of our foresters in their vigilant administration of our forest reserves.

The need for the development and utilization of our timber resources is now more compelling than ever. This is due not only to the growing demands of domestic consumption and the dearth of our dollar reserves, but also to requirements from abroad. The prospects, from the viewpoint of our industry, are very encouraging. Orders are coming not only from nearby markets in Asia. Even the United States of America, a great timber producer, has recently become an importer of forest products.

I would like to avail myself of this opportunity to give expression to a feeling, rather a conviction, which I have long entertained. I believe that our Government has been sadly negligent in the matter of following up energetically the good work started half a century ago. It has left the Bureau of Forestry to function without adequate aid, an attitude which is far from being commendable, to say the least. The expansion of the public services rendered by the Bureau calls for more operating funds. But the Administration has not only failed to increase the amount needed to operate the Bureau in a manner compatible with the general need of larger revenues, but has lately reduced its personnel. The present appropriation for that Office is meager and is out of proportion to its importance as a money-producing instrumentality, considering that, aside from the amounts the government receives from indirect taxes on forest dependent industries, the forests bring to the public coffers an annual income of six million pesos. This condition stands in glaring contrast with certain government-owned enterprises which have been merely wasting the people's money.

Our forest officers are among the most neglected public servants. A great many of us fail to appreciate fully the value of their services and the benefits that the country derives therefrom. The public is not aware of the dangers they face as they move through ravines and over mountains performing their duty. Because their work lacks the glitter and glamour of the white-collar employments, they do not arouse public sympathy or interest enough to secure an improvement of their lot. Forestry service includes protection of soil and watershed, a function as far reaching in importance as forest conservation. I consider it urgent to bring it to public notice and comprehension. It must be appreciated, improved and extended if we want our forests to yield the greatest possible measure of usefulness.

It is my purpose to do whatever I can in the way of securing immediate attention and support to the all-important function of the Bureau of Forestry. This Bureau and the men under it, the guardians of one of the most essential sources of our national wealth, deserve the cooperation of the community and the government in their great task of conserving and developing one of the most priceless resources of our land.

GIVE IT A BREAK

The College of Forestry in Los Baños, which for so long has been in dire need of funds, stands to receive from the United States government a bounty of P167,000.00. But from this happy prospect, however, only begins its trouble. For the impoverished college also faces the frustration of missing the proferred gift by June 30 if nothing is done about it.

The big sum has been set aside by the United States government under the counterpart fund agreement to meet one-half of the estimated expenses for the reconstruction and expansion of the college of forestry building. Before the sum can be released, however, the Philippine government must first appropriate its counterpart or the other half to finance the project. Otherwise, after June 30, the offer lapses.

Officials of the college have made representations with the head of the University regarding the matter. But unfortunately, the University is not presently endowed to foot the counterpart.

It is, therefore, crystal clear that the college officials are left with one last recourse —to petition Congress to appropriate the vital counterpart. Or be left twiddling just the empty sack.

The Honorable director of the bureau of forestry, who is ex-officio dean of the college, must be able to do something about the matter. If he is not yet in patting terms with majority of the legislators, a representation perhaps with Mr. Magsaysay would turn the tide for the college, considering the predilection of the President for projects that more directly touch on the foundation of our national life.

The college needs a bigger house for its congested and ever-growing enrolment. At present, it must cater not only to the frantic demand of the bureau of forestry for technical men to guard and tap our forest wealth but also to that of private enterprise in our growing forest industry.

The college must also have adequate facilities and equipment to keep up with excellence. And finances for research and experimental projects.

There is now a move by every student of the college to write his congressman for action on the desired appropriation. We should expect early action for the best. Or else, forestry students can always find in the Maquiling forest plenty of wood with which they may badger their congressmen ever after.—rt

Phil. Collegian, Feb. 4, 1954

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Techniques and Practices of Forest Products Laboratories and Industries in the U.S.*

by

EUGENIO DE LA CRUZ TA-92 FR. 351 Chief, Div. of Forest Management

DIVISION OF SILVICULTURAL RELATIONS

Functions

1. "Plans, directs, coordinates, and conducts fundamental and applied research on the relation of growth condition and heredity to the structure and property of wood, the relation of the cellular structure of wood to its strength, shrinkage and other properties; identification of wood and the development of identification keys, and the compilation of information on foreign species of wood.

2. "Consults with technicians and other officials, both public and private on research policies and plans and on the application of the results of research on wood structure and properties.

3. "Analyzes and interprets research data and prepares and reviews reports and publications incorporating the results of research on the growth, structure, and quality relation of wood.

4. "Develops and maintains cooperative relations with public and private agencies to advance research on the relation of wood structure and properties to growth condition and to improve the utilization of wood through better knowledge of its properties in relation to its structure."

It has been found here that as a rule fast growing trees of some species have higher specific gravity than slow growing ones. This is due to the fact that in coniferous woods there is more area of solid wood than slow growing wood. This seems to be just the opposite in the Philippines where hardwoods of the same species are growing in different locations. The faster growing trees due to abundant rainfalls well distributed throughout the year have less dense woods than those growing in drier regions. This is shown in our studies on specific gravity of woods from Basilan Island in the South and those from Cagayan Province of Northern Luzon.

The Division has done quite an extensive work in correlating the work on growth with the specific gravity and the strength of wood or the modulus of rupture. All available publications covered by the work of this Division are being secured for ready references in the Philippines.

Structure and Identification Section

This appears to be a small section with only two men but there is a tremendously important work being done here in the way of systematizing the identification of wood. This work is not only confined to the native American woods but includes all other woods coming from all parts of the globe. Dr. Kokacha is a member of a Committee of 3 of the International Anatomy Society which is trying to evolve a system by which wood of any country could be identified through the use of the IBM cards. He is working an index scheme to guide him in grouping anatomical wood characteristics that are helpful to identify a family, a genera, then the species.

de la Cruz.

^{*} Second of a series on the report of Prof. E.

The use of the punch card system is a tremendous help in this work instead of the old system of using identification keys which could be in most cases confusing than otherwise. In identifying a piece of wood he makes a tangential and radial specimen. He mounts these in glass slides and examines each under a powerful microscope using either 200, 400 or 800 magnification but ordinarily 200. Then he picks first the salient anatomical characteristics and with the use of the index he developed, he orders an IBM card for this particular specimen. Once this is done, then the rest of the cards on file are sorted by the sorting machine to find which one of these reference cards may have a similar record of a specimen-by family, genera, then species. The one found exactly having the same characteristics is the identification of the specimen in question. Otherwise it must be a new species.

I found the IBM machine very interesting because of its versatility and accuracy in reproducing and tabulating figures and computing at the same time from mere punches made on original cards. I saw them punching cards for U.S. imports of lumber for various countries, showing the country of origin, port of entry, species, board feet and value in dollars. When they get through preparing these cards they place them in the tabulating machine and in less than a minute a complete tabulation comes out with all the figures totaled.

All the results of fundamental researches in the Forest Products Laboratory are now being filed in IBM cards. After a master card is prepared, the operators can prepare any number of cards along the same pattern. These are filed in cabinets that can hold big quantities of data because of the small space a card occupies. I was shown the filing room and told that there are already on file more than a million cards of various nature representing the results of various scientific tests done in the Laboratory.

I have found too that even the payroll card is being kept in this IBM card for each individual showing the salary grade, the base pay and all the deductions, and the net pay for each pay period, all computed by the machines.

I understand that this machine can be rewired to do practically any job one can think of. But it is not for sale. The laboratory is paying a monthly rent of \$300.00. It is worth it as it can do a job of more than 20 to 30 men depending upon how complicated is the task.

They have devised here various short cuts in the determination of specific gravity. But they use also the immersion system using a balance that gives direct reading of specific gravity with 100 cc specimen oven dry.

Structure—Property Relations Section

This is a section in the Division of Silvicultural Relations which is concerned in fundamental research on anatomical features affecting the properties of wood. Some of these are to obtain the fundamental information on:

1. Basic variability in anatomical features of annual rings with respect to year of formation or age from the pith, position in relation to the base of the active crown, and rate of increment in diameter of the rings.

2. Combined effects of anatomical features of the wood on its density, strength, and shrinkage, and the interrelations between those properties.

Work of this nature has to be closely coordinated within the Laboratory divisions of Silvicultural Relations and Timber Mechanics right along with the proposed research on the strength of wood as related to the physical structure and chemical composition. This work is based on earlier discoveries that strength and longitudinal shrinkage are jointly influenced by the specific gravity of the wood and the angles at which fibriles of cell-walls are arranged lengthwise in the wood fibers. It is believed that determination of such relations will reveal valuable information for evaluating unknown kinds of wood, superior-progeny trees to supply seed for plantations, and hybrids. These will be used as tools to improve the use of wood by better prediction of its properties from readily determined characteristics.

I am inclined to believe that if we are to orient properly our work in our proposed Forest Products Laboratory fundamental researches along these lines will serve to strengthen and give more light to the varied and multifarious problems we shall surely encounter in the various fields of investigations on increasing the utility of wood and wood products of the country.

To appreciate properly the importance and scope of applicability of one phase of this basic research, let us turn our attention to the occurrence of tension wood in some of our well-known commercial species. While we are aware of its presence we are not in a position to appreciate its direct relationships to longitudinal shrinkage and warping. Through the results of basic anatomical studies in the Laboratory, it was found that tension wood is characterized by the presence of gelatinous fibers. One important cause of longitudinal warping of hardwoods is the difference between tension wood and normal wood in shrinkage along the grain. Such difference sets up internal stress that results in warping. Tension wood is frequently distributed irregularly in hardwood lumber.

There is no doubt that we will be confronted with the problem of dealing with wood where growth rings are entirely absent. But we are quite fortunate that we have forest plantations all over the country where specimens of known ages can be secured for this type of studies. As our work on sample plots all over the country expands we shall be in a position to determine the yearly growth by diameter classes from the specimen trees from different regions.

Foreign Woods Section

The work consists of the preparation of information on foreign woods in conjunction with the work of Dr. Kokacha of the Structure and Identification Section.

DIVISION OF WOOD PRESERVATION

Functions

1. "Plans, directs, coordinates, and conducts fundamental and applied research program on the protection of wood and wood structures from attack by decay, borers, insects, and fire, the *painting* and *finishing* of wood and wood structures, the manufacture of veneer and fabrication of plywood and laminates, the *testing* of glues and the effects of *heating* of wood.

2. "Analyses and interprets research data and prepares and reviews reports and publications incorporating the results of research on the preservation of wood and wood structures, the manufacture of veneer and plywood, the fabrication of glued members, glue formulation and gluing methods, and the heating of wood.

3. "Consults with technicians and other officials, both public and private, on research policies and plans and the application of the results of research on the preservation of wood, veneer and plywood and glues and gluing.

4. "Develops and maintains cooperative relations with public and private agencies for the furtherance of research in the preservation of wood and to promote the better utilization and protection of wood."

Glues and Gluing Section

At the Forest Products Laboratory tests have been made on a number of *liquid glues*, which were found to differ very widely in strength. The weak ones are entirely unsuitable for woodworking purposes, but there were found some that compare favorably in strength with the hot glues. A high grade liquid glue should have an average shearing strength of not less than 1,700 or 1,800 pounds per square inch, it should dry rapidly, it should remain fluid at all ordinary temperatures, elastic and shock-resistant, and not unusually susceptible to the action of high temperatures, high humidity, molds and bacteria. Of 11 liquid glues examined, the most viscous showed the greatest adhesive strength (T.N. #F-2).

Water resistant glues-several basic formulas for making casein glue were worked out by the Laboratory, but at the present time water-resistant glues are sold in the market and relatively little is compounded by the glue user. Casein glues may be used at room temperature although they are sometimes used in hot-plate presses. They can be made to vary over a wide range in water resistance so the purchaser must have to state specifically what is desired. They are moderately water resistant but not water proof. Well made joints will withstand a certain amount of exposure to moisture but will fail under prolonged exposure to wet conditions. If not protected by preservatives they are subject to mold attack.

Soybean vegetable protein glue is similar in most of its characteristics to casein glue but does not produce a strong joint. It is used extensively in the manufacture of softwood plywood.

Since about 1935 woodworking adhesives from synthetic resin have developed steadily. Some of them make joints that are dependable when continuously exposed to water and to the weather—they are urea-, phenol-, melamine-, and resorcinol-formaldehyde resins. Some resin glues are prepared in the form of dry films, some in powder forms soluble in water, and some in the form of water and alcohol solutions or suspensions.

Well-made joints with urea resins are highly water resistant under ordinary conditions but not as durable as the phenol, melamine and resorcinol resins, especially under conditions involving high temperatures and high relative humidities. The last 3 produce joints that are very durable under all types of weather and water exposure. Over-heating reduces strength of animal glue solutions. The viscosity of the high grade glue declined more rapidly than that of the veneer glue, but at the end of the heating test, the viscosity of the high-grade glue still averaged higher than that of the veneer glue.

The glues that are adopted for gluing wood may conveniently be divided into six classes:

1. Animal glues made chiefly from the hides, bones, sinews, and hide fleshings of cattle. These glues come in dry form.

2. Casein glues and vegetable-protein glues which have similar properties and characteristics. The former are made from the curd of soured milk, lime, and other chemical ingredients. The latter are made from soybean meal, peanut, and other high protein-containing meals. Both glues are sold in prepared form, requiring only the addition of the separate ingredients to the water.

3. Vegetable-glues, usually made from cassava starch.

4. Blood-albumin glues, made from soluble blood albumin, a product recovered from the blood of animals. These glues must be mixed from the separate ingredients just before use, since they deteriorate rapidly on standing.

5. Liquid glues, commonly made from the heads, skins, bones, and swimming bladders of fish. Some liquid glues are made from animal glue and from other materials. They come in prepared form ready for immediate use.

6. Synthetic-resin glues are products of the chemical industry. Most of them are of two types: urea-aldehyde combinations and phenol-aldehyde combinations. They are sold as powders to be mixed with water, in liquid form, and at least one is available as a dry film. The earlier products were often alcohol solutions.

The term "synthetic resin" was first used to describe synthetic chemical compounds that resembled natural resins in their general appearance. As more synthetic resins were developed, the term came to include many products bearing little, if any, resemblance to the natural resins. At present, it is applied to a wide and heterogeneous group of materials with many uses.

Synthetic-resin glues differ not only in respect to their basic ingredients and as to whether they are thermoplastic or thermosetting, but also in respect to numerous other characteristics, such as type of hardener, acidity or alkalinity, fillers, extenders, solvents, curing temperatures, storage life, and permissible assembly time.

Several of these synthetic resins have found widespread application as woodwork-Their use has resulted in iming glues. proved performance of many glued-wood products and has facilitated the adoption of such products to new uses and the development of new wood products. Plvwood for aircraft and other exterior uses, laminated ship keels and other laminated members for use under severe service conditions, wood aircraft assembled with resin glues, radio masts for tropical use, and new types of wood propellers for aircraft are among the many products whose manufacture has been facilitated or whose performance has been improved through the application of synthetic glues.

This is one of the activities of the Laboratory which perhaps made tremendous advances not only in the gluing of wood to wood in various forms to suit multifarious uses but wood to metals, plastics, compreg, papreg, sandwich panels of various descriptions and uses, etc. References are being secured for our Laboratory.

Preservative Treatment Section

The main objective of preservative treatments is to protect the wood where it is exposed to destruction by decay, insects, or marine borers. Wood preservatives are chemicals that, when injected into wood, make it unpalatable or uninhabitable to wood-destroying organisms. For general use, however, a preservative must have high toxicity to the organisms that degrade or des-

troy wood, must also be chemically stable and permanent so that it will remain in the wood for many years, have good penetrating properties, be safe to handle, relatively harmless to wood and metal, readily available, and reasonably cheap. With few exceptions, these preservatives fall into two general classes: oil-borne preservatives, like creosote and petroleum solutions of toxic chemicals which are relatively insoluble in water and of low volatility; and the waterborne salts that are injected into wood in the form of water solutions.

The accurate evaluation of a wood preservative is a difficult and time-consuming job. It can not be done as easily as the quality of some products of industry the fitness of which may be determined within a matter of hours in the laboratory. To evaluate a new preservative, screening tests must be resorted to. If the preservative in such testing shows up favorably it can then be tried out in accelerated tests on wood stakes in the field. This is desirable since field conditions can not be reproduced in the Laboratory. Actual service tests are necessary which may last several years even in the case of poor preservatives.

Considerable interests has been given recently to a test program by the U.S. Forest Products Laboratory and several cooperators in which the same preservatives are included in coordinated laboratory tests, marine borer tests, and a post service test. This should furnish a good opportunity for the correlation of the results of accelerated and service tests.

Right along with these preservative tests basic studies are to be conducted on rate of disintegration of wood under different heating conditions and different temperatures whether in steam, water, or an oven. The results are of great interest to those using wood where it will be exposed to various temperature conditions, or to those who must heat it prior to use. Another phase of equal importance are the studies on the effect of temperature on the dimensions of green wood and the temperatures obtained in timbers when the surface temperature is changed after various periods of heating. The following factors were found to have an important effect on the rate of temperature change: (1) heating medium, (2) moisture content, (3) direction of grain in which heat movement takes place, and (4) density or specific gravity.

Heat studies are being undertaken along the following lines:

1. Conductivity or quantity of heat that passes through a given area in a given time for unit thickness.

2. Rate of temperature change in wood.

3. Effect of heat on rate of deterioration of wood as determined by loss in oven-dry weight.

4. Effect of heat on dimension changes in green wood.

5. Effect of heat on strength properties of wood.

A great deal of the test experiments being conducted in this field in the Laboratory are handed down to the different commercial treating plants through an extension service with the idea of improving the operations and securing the maximum results in the most economical way. But certain difficulties were met in various quarters because of the belief of the men handling the operations that they knew their job better than anybody else and are refractory to new ideas and new principles of doing things. But once convinced, they proceed to follow the treatment as outlined by the Laboratory. In certain instances, however, it was found that the operators just slide back to the old system in which they are accustomed.

There were prepared several charts that show what expenses are involved in doubling the life of a treated timber or how to find the average life of a bunch of ties, say 1,000 or more, after 10 or 15% have been replaced.

Fire Protective Section

This is considered to be the most difficult activity to standardize due to the fact that

it is inconceivable that all of the interrelated factors affecting fires on different types of structures could be incorporated and controlled in one laboratory test. With the idea of approaching the solution of these varied problems, laboratory investigators resort to different test methods to provide information relative to specific phases of fire performance, by observing the variation in fire intensity resulting from different kinds and degrees of fire retardant treatment. These are roughly classified into two general groups: (1) those used essentially to study or evaluate resistance to the spread of fire, and (2) those used principally to study or evaluate resistance to the penetration of fire.

(1) Plane spread tests include the (a) fire-tube test, (b) modified Schlyter tests,(c) horizontal furnace, (d) ASTM crib test, and the roof corner test.

(2) Flame penetration tests.

Protection of wood against the spreading of fire can be provided by two types of treatments: impregnation with fire-retarding chemicals and surface coverings of fireretarding coatings. The former has been in use to a limited extent for many years and during the war years large quantities were used in the construction of military installations. But the latter have received little recognition principally because of the lack of standard for minimum requirements enabling the purchaser to know whether he was getting a good product or one with little or no merit.

Various tests have been devised to measure the effectiveness of fire-retarding coatings in checking flame spread under varying conditions for fire severity, but the work done has been insufficient to determine how effective such coatings are in actual use.

Among the failures there is a will to thwart others. —Chester T. Crowell.

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If men were bought and sold by the pound, as pigs, heifers, cows, and sheep are, a man would be worth much less than a well-fattened pig.—M. K. Wisehart.

Some Trees Suitable for Park Planting

By Teodoro Delizo

Asst. Professor in Silviculture; C.F.

As a result of World War II many of the trees planted in our parks, public plazas, school grounds and areas for recreation were destroyed. One important problem at hand is the selection of trees that are suitable for planting to replace those that were destroyed and for new plantings in order to restore the beautiful landscape of the country. We have both native and introduced species which meet some of the requirements for ideal park trees. The requirements are: (1) It should have big evergreen leaves. (2) Deep rooted to be wind resistant with tough strong symmetrical wide spreading branches. (3) Ornamental leaves, flowers and fruits. (4) Resistant to drought, insect and fungus attack. (5) Non-poisonous. While no particular species meet all the essential qualities for an ideal park tree, yet many of those that will be discussed later possess some of the essential ones. It is not enough that a tree will grow in a place. It should be there for a particular purpose. A tree may be grown for shade and at the

same time for the fruits or for the flowers. In our public forests there are several species which when brought under cultivation promise to be beautiful trees for park planting. Some of those tried are Balitbitan, Cynometra ramiflora Linn., Podocarpus philippinensis Foxw., Malaruhat, Syzygium simile Merr., Makaasim, Syzygium benthamii (A. Gray) Merr., Agoho, Casuarina equisetifolia Linn., Botong, Barringtonia asiatica (L) Kurz., Anchoan, Cassia javanica L., Liusin, Parinarium corymbosum (Blume) Miq., etc.

The usual size height and crown spread of the tree should be known in order to be able to plant them properly in the park. We say that the crown is small when the spread is not over five meters, medium when the spread is over five and less than ten meters and large when the spread is more than ten meters. This refers to average conditions because the spread of the crown is affected greatly by the fertility of the soil, distance of planting, soil moisture and other environmental conditions.

Scientific Name	Common Name	Special Qualities
Acacia confusa Merr.	· · · Ayangile	Leaves
Acmena acuminatissima (Blume) Merr	Binoloan	Shade
Agathis alba (Lam) Foxw	Almaciga	Leaves-shade
Aleurites moluccana (L) Willd.	Lumbang	Leaves-flowers
Aleurites trisperma Blanco	Baguilumbang	Shade
Alphonsea arborea (Blanco) Merr.	Bolon	Leaves-shade
Alstonia scholaris (L) R. Br.	Dita	Branches
Artocarpus blancoi (Elm) Merr.	Antipolo	Shade-leaves
Artocarpus adoratissima Blanco	Marang I	Shade-fruit
Artocarpus cumingiana Trec	Anubing	Shade
Barringtonia asiatica (L) Kurz	Botong	Shade-fruit
Bauhinia purpurea L	Purple Bauhinia	Flowers-shade
Bischofia javanica Blume	Tuai	Shade
Buchanania arborescens Blume	Balinghasai	Shade
Calophyllum inophyllum L	Bitaog	Shade

LIST OF TREES SUITABLE FOR PARK PLANTING

GRADUATION ISSUE-APRIL, 1954

LIST OF TREES SUITABLE FOR PARK PLANT	LIST O	LIS	ST OF TREES	SUITABLE	FOR	PARK	PLANTIN
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	Terminalia catappa L	Talisai	Shade-leaves

Shade means that the tree is good shade tree; leaves mean that the leaves are ornamental; flowers, mean ornamental flowers; Fruits mean edible or ornamental fruits; branches mean horizontal branches. DESCRIPTION OF SOME TREES SUIT-ABLE FOR PARK PLANTING

Agathis alba (Lam) Foxw., Álmaciga. Large sized tree with pyramidal crown when young. Evergreen foliage, horizontal branching order. Leaves are opposite or nearly so of leathery texture. Fruits are in cones often in purplish color.

- Artocarpus cumingiana Trec., Anubing. A medium to large tree. The crown is rather open. The leaves are big varying from 15 to 20 centimeters long and from 7 to 12 centimeters wide, hairy beneath.
- Calophyllum inophyllum L., Bitaog. Large sized tree with open crown adapted to places not far from the sea. Branches are tough. Leaves are simple opposite yellowish green in color with yellow midrib. Flowers are small borne in cluster, rather fragrant and white. The fruit contains oil.
- Canarium ovatum Engl., Pili. Medium sized tree with medium crown. The crown is fairly open. It has a tendency to form buttress. The leaves are compound, flowers small and fragrant, fruits consist of thick shelled triangular nut surrounded by a pulp. The pulp when cooked is edible as well as the nut.
- Cassia fistula L., Caña fistula. Medium sized tree, partly deciduous with open crown. It has compound leaves but does not produce heavy shade. The flowers are beautiful golden yellow and numerous, arranged in pendulous racemes from top to the lower part of the crown.
- Cassia javanica L, Anchoan. A medium sized tree. Deciduous, open crown with compound leaves. It does not give heavy shade but the branches are tough. The whitish pink flowers are very well disposed among the leaves and very showy from May to June.
- Casuarina equisetifolia L, Agoho. Medium sized lofty tree that resembles the pine. It is especially adapted for locations near the shore where the soil is sandy. It has fine filiform branchlets instead of leaves. It has pyramidal crown when young. The shade is not heavy but is planted because of its graceful appearance and resistance to windthrow.
- Chrysophyllum cainito Linn, Star Apple. Small sized tree, introduced in the Philip-

pines for its fruits. It is evergreen, the leaves dark green, oval which is coppery yellow beneath. Suitable for small space of ground.

- Cynometra ramiflora Linn, Balitbitan or Oringen. Small sized evergreen tree with compact dense crown and persistent lower branches. The leaves are deep green when old. The young leaves are developed in long drooping greenish white bunches at the tip of the branches.
- Barringtonia asiatica (Linn) Kurz, Botong. Medium sized tree with dense spreading crown. The leaves are large, leathery, shiny, larger at the apex than at the base. It is suitable for situations near the seashore where the soil is sandy.
- Delonix regia (Boj) Raf, Fire tree. Medium sized tree, almost deciduous, rather open crowned and produces light shade. From March to July, it produces immense sprays of scarlet flowers which make the tree a gorgeous one.
- Diospyros discolor Willd, Camagon. Medium sized evergreen tree with compact dense crown. The leaves are simple alternate, leathery and densely covered with fine white hairs beneath. The fruits are as large as the apple, covered with brown hairs. It is found in many sections of the city of Manila.
- Ficus elastica Roxb, India Rubber. Large handsome quick growing evergreen tree. It has open crown. The leaves are large, oval, leathery and shiny. It develops enormous aerial buttressed roots which makes it very attractive tree for park planting.
- Hydnocarpus hutchinsonii Merr, Bagarbas. Medium sized evergreen tree with short straight bole. The leaves are oblong and leathery from 15 to 25 centimeters long and from 5 to 9 centimeters wide. The fruits are globular of about 8 centimeters in diameter, and very attractive.
- Koordersiodendron pinnatum (Blanco) Merr, Amuguis. Large sized tree with symmetrical crown, ridged bole and deep

green leaves. It produces heavy shade. The whitish terminal flowers on February and March are showy.

- Lagerstroemia speciosa (Linn) Pers. Banaba. Medium sized partly deciduous tree. It has dense foliage and semi-open crown. It produces at the ends of the branches large erect panicles of beautiful flowers during the months of from May to July.
- Mangifera indica Linn, Mango. Large sized evergreen tree highly esteemed fruit tree in the Philippines. It produces wide spreading branches with short trunk. It is shallow rooted and sometimes blown down in strong winds. It furnishes excellent shade during the dry season.
- Peltophorum inerme (Roxb) Llanos, Siar. Large attractive tree. The crown is symmetrical with spreading branches and dense compound leaves. The flowers are bright yellow in dense mass which are very showy during the months of March and April.



- Pterocarpus spp., Narra. The national tree of the Philippines. A medium to large tree with wide spreading crown. It is deciduous. The trunk produces buttress which make it very stately when grown in the open. The leaves are alternate compound. The flowers are numerous bright yellow and last for about twenty four hours. The wood produces valuable timber.
- Sapindus saponaria L, Kusibeng. Medium sized tree usually growing in the parang or at the edge of the forest, resistant to drought and windfall. The crown is symmetrical with compound leaves.
- Spathodea campanulata Beauv, African Tulip. A tall erect fast growing evergreen tree. The leaves are compound. The large, bright orange scarlet, erect cupshaped flowers borne at the tip of the branches, render the tree strikingly handsome. The tree is in bloom from November to February. The branches are weak and broken in strong winds but the danger is not much when grown in groups.
- Swietenia macrophylla King, Mahogany, Large Leaf. This species is introduced from tropical America and the source of the Mahogany wood of commerce. It is a large-sized deciduous tree. The leaves are compound, ripen at the same time and drop on the ground practically in mass in March and April. The old leaves are replaced within a few days. It is getting popular as a roadside tree and is found in many places in the Philippines.
- Terminalia catappa L, Talisai. Large handsome tree with horizontal branches. The crown is pyramidal in shape when young. The leaves are big and oftentimes perforated by insects. It does well on sandy soil near the seashore.

It is said, with some degree of truth, that no man is a villain when you know him.—Dr. Hamilton Fyle. * * *

The eternal struggle: keeping your earning capacity up to your wife's yearning capacity.—*Kiwanis Magazine*.

A BAMBUSETUM IS BORN

By FRANCISCO N. TAMOLANG Forester, Bureau of Forestry

Because of its popularity and common use, the bamboo has proven to be a profitable business as in the sawali industry of Tarlac and Pampanga both of which provinces have discovered that the humble and commonplace bamboo can be made to pay very rich dividends in business and a boon to those who cannot afford the costlier construction materials for their homes and public buildings. In one of the issues of the Forestry Leaves, much was said about the "king bamboo", its current uses and commercial possibilities. However, with the recent establishment of the Forest Products Laboratory it becomes a certainty that further studies on its strength, pulp quality, economic aspect, etc. will be explored. Then, too, when definite favorable results are obtainable, the Central Forest Experiment Station may be harnessed to find means of propagating the same. In anticipation of these forthcoming needs there is a necessity for planning out the means for supplying the materials which may be called for by the laboratory and perhaps by some of the reforestation projects. What may be the answer to these needs is a bambusetum or bambodal (as called in Spanish) which can supply the materials at any time.

WHAT IS A BAMBUSETUM?

A collection of living bamboos, either native or exotic, raised and cultivated either for scientific, educational, or aesthetic pur poses or any combination thereof is called a *bambusetum*. This unfamiliar term which is new to a good many of us, came from the lips of one of the world's specialists on bamboos who, with Dr. J. V. Santos of the University of the Philippines, visited * the Makiling National Park on December 9, 1953, a week after the closing Plenary Session of the Eighth Pacific Science Congress. Dr. McClure upon noticing a number of our bamboos which are scattered on the Forestry Campus, enthusiastically suggested the establishment of a bambusetum similar to the 10-hectare lot he established in China. It is said that a bambusetum affords one the opportunity to observe and study closely the growth habit of the plants and their field characters which may be more practicable and preferable clues to their identification than their floral characters because it is said that some bamboos have their seed years ranging from 10-50 years. Besides this, it becomes a handy source of materials for studies which will be conducted by the forest products laboratory or of entities engaged in research or investigation.

ESTABLISHMENT AND DEVELOPMENT

The bambusetum of the Bureau of Forestry and the College of Forestry, U.P. is the "brain child" of Forester Felix Franco, Chief, Division of Forest Investigation and Professor Calixto Mabesa. Forester-in-Charge of the College of Forestry, University of the Philippines. On December 17, 1953 a nursery was established for conducting studies on the propagation and raising of planting materials for this bambusetum. To start with, there are about ten different kinds of bamboos being raised in the nursery which will soon be transplanted in their proper places in the proposed site in hec-

* The first visit of Dr. McClure was on November 25, 1953 together with Dr. Walker of the Smithsonian Institute, Washington, D.C. and Dr. J. V. Santos of U.P. tares 6c-d and 7c-d about 400 meters from the College of Forestry building. It is hoped that from time to time more bamboos from all parts of the islands and also from abroad will be added to the present collection in the Makiling National Park and planted systematically in the *bambusetum* which will soon be improved. The idea is to render it accessible not only to scientists, excursionists, and other interested groups but particularly to the students of the College of Forestry, who after their graduation may be interested in the business possibilities of the bamboo.

COLLECTION OF MATERIALS

To date there are about 18 species of bamboos collected for the bambusetum. Thev are: (1) Spiny bamboo (Bambusa blumeana (spinosa Roxb.); (2) Indian bamboo (Bambusa arundinacea Willd.)* (3) Kauayan-kiling (Bambusa vulgaris Schrad.); (4) Yellow or golden bamboo (B. vulgaris var. striata (Lod.) Gamble);* (5) Bambusa nana; (6) Chinese bamboo (B. multiplex glaucescens (Willd.) Seib.);* (7) Bayog (Dendrocalamus merrilianus Elm.); (8) Striate bayog (Dendrocalamus sp.); (9) Bekki-bekking (D. sp.?); (10) Botong or Male bamboo (D. strictus Nees); (11) Bolo (Gigantochloa levis (Blco.) Merr.); (12) Gigantochloa aspera: (13) Boho Schizotachyum lumampao (Blco.) Merr.); (14) Yellow boho (S. brachycladum (cinera);* (15) Tagkauayan boho (S. sp.?); (16) Anos (S. lima (Blco.) Merr.); (17) Pole vault bamboo (Phyllostachys sp.);* and (18) Fishing rod bamboo (Phyllostachys sp.)*.

Of particular interest are the following bamboos: (1) Bekki-bekking whose identification is still unknown was collected by A. Sison from Aguilar, Pangasinan and is used for walking sticks and balusters; (2) Striate bayog also collected by A. Sison from Labrador, Pangasinan is considered by herbolarios as a cure for T.B.; (3) Striate spiny bamboo which is believed to exist in San

Carlos, Pangasinan; (4) Gigantochloa sp. noted for the biggest culm so far (a diameter of 1 foot) is believed to exist in Impalutao, Bukidnon; (5) Multi-colored bamboo one time mentioned in "Where in the Philippines" of the Manila Times can be found in San Juan, Abra; (6) Dendrocalamus curranii of Sampaloc and Polilio. Quezon; (7) Cephalostachyum mindorense Gamble of Mindoro; (8) Gadua philippinensis Gamble is a rare species believed to be found only in Davao; (9) a species of bamboo in Japan whose rhizomes are prolific producers of young edible shoots; and (10) a species of bamboo in China noted as good fodder for animals is recommended as a prospective control for cogon and other grasses. Dr. McClure promised to send us the last-named bamboo. The entire nation would be very grateful if he could send to us in addition the species of edible Japanese bamboo. This will certainly supplement the Filipino diet and help bolster the food production campaign in the Philippines.

Observations in the Makiling National Park show that most of the bamboos which were planted by Forester H. M. Curran are thriving very well and have been turning in dividends in the form of human benefits. From all indications, they may serve as natural dams along gulleys and levees in cogonal lands, particularly in reforestation projects by minimizing the rate of flow of run-off water; thus reducing to the minimum the ravages of soil erosion. If quite a number of bamboo clumps can be maintained in reforestation projects, it becomes certain that they will be an invaluable source of construction materials, fence posts, potting tubes, seed baskets, viandas, forage, nursery implements, etc.

The bambusetum is not conceived to be a "whale of a project"; but it is one which deserves due attention and consideration by all men in the Forest Service especially those in the field upon whom depend its (Continued on page 40)

^{*} Means introduced species.

The Mighty Eight

By NAPOLEON T. VERGARA

Of the more than eighty young men who plunged into the forestry course four years ago, only eight are emerging with their BSF degrees now. The rest have either left college after finishing the Ranger course or are following behind. Here they are: the Mighty Eight.

BERNARDO C. AGALOOS

If there is any "silent water running deep" in our bunch, Narding is. He never talks much of himself nor his feats, but his records show us he can do a lot. He was never heard to utter a word related to lovemaking before, much less mention that he had already a sweet gal waiting for him, but all of a sudden, we found him hitched to one. He has now a bouncing son to his credit.

Sharp guy, this one. He can size up a person in a few minutes and be able to find out the most distinctive characteristics of that person. Being able to imitate the unusual features of others is one of his rare abilities. His sense of humor has netted him a sizable group of friends. He is diminutive, and hopes to replace one of the division chiefs of his size someday.

FELICIANO V. BARRER

Fel didn't know what course to take up after his high school. He came to Los Baños on a combination prospecting—pleasure trip and fell in love with its climate and environment, so he wound up in the College of Forestry. They say he should have taken up law (this guy can orate, you know), but he says oratory is also useful in Forestry (sure, he can use oratory to sway kaingeros into abandoning their kaingins). Politics is on top of his list of conversational topics. To stay up as late as 12:00 at night and wake up as early as 4:00 everyday is a thing few people can do, but he does it and still appears normal. A lucky student gal receives occasional letters from him, but he claims there's nothing serious about it. In the field of dancing, he does the tango with the ease and grace of Valentino. That long wavy hair is his pride, and he cares for it as a new mother does with her first-born child. He firmly believes that money is the root of all power. His heart lies South, and he plans to work just there after his schooling.

BENJAMIN BATOON

When you run into one of our Seniors with that thick Abra accent, you can be sure it is Ben, more known to his buddies as Botchame. Someone gave him that monicker when the song Botcha Me was a top favorite, and it has stuck to him up to now. He simply adores gals, and thinks that life in this strife-torn world would be very unbearable without them. (What do you say gals?) Marriage is far from his mind yet, but in the meantime, he says, there's no law which prohibits him from making love (to gals, of course). He has a knack of touching anybody he is conversing with first before he speaks up. His retentivity makes the memorizing of Rizal's "Mi Ultimo Adios" seem chicken feed. He is Abra's version of Cassanova, and even at the first meeting, he can charm a gal with his eyes.

BERNARDO L. BURGOS, JR.

Bernard is 22 years old but looks 18 years young. He does things in an almost casual

GRADUATION ISSUE-APRIL, 1954

yet efficient manner. Half-baked jobs are his pet peeves. To him, a month is not complete without a movie or two. He devotes most of his off-hours at his hobbies of modelplane making and reading. Possessing that characteristic curiosity of a boy, he loves to tinker with anything unusual, especially with mechanical gadgets, and he can explain how automobile transmissions and jet engines work, better than anybody in the group. Don't let his boyish features fool you. He has a markedly mature and independent thinking. He is ready to voice his opinion anytime and he is not afraid to differ with anybody, either. He is looking forward to the day when he will be a Forest Conservator in British North Borneo.

JULIAN MEIMBAN JR.

We call him Julie for short (sounds girlish, doesn't it?) This young man will make an ideal forest officer. He is humble and unassuming, but he is serious. He works as efficiently as a well-lubricated machine. When you talk to him about religion, you better know what you're talking about, because he knows plenty about it. He can discuss the Bible inside out, even mentioning the chapters, and pages. His broad and infectious smile has never failed to charm a stranger yet. He talks with slow deliberate air, and his polished tongue is the type that can convince an erring kaingero to walk into jail willingly. Gestures are an integral part of his daily speech; he can't do without them. When he tells stories, he makes them so vivid that after it, you'd feel as if you just saw a movie. Don't be surprised if you find him behind the Director's desk someday.

BUENAVENTURA B. RODRIGO

Nicknames are often derived from first names, but not in this guy's case. We affectionately call him *Rod*. The oldest in the bunch, he feels it his duty to keep us younger ones entertained with the humor that he got while in the Army. He has the famous

Bataan battle and some guerrilla activities to boast of if he wants to boast, but he He'd rather talk about lumberdoesn't. grading and scaling. He has three kids to his name, but that does not prevent him from looking twice at a blooming damsel, provided the sweet woman is not around. Alcohol, he thinks, is not at all bad if taken in very moderate amounts, and that is what he does to wash away his occasional homesickness. He knows just when and how to pat you in the back to a point where you can't refuse anything he asks for. Up to now, his PR (that's a forester's short for Public Relations) remains unsurpassed in the College. Right now, he's slim, but it will not be long now before he will bulge in the middle. Men with a good PR usually do.

ALFONSO I. TIAM

Fonso possesses the reserve of an English gentleman. Jokes which give us bellyaches succeed only in making him smile. When he does laugh, you can be sure that the joke is super. Being the father of three kids, he has naturally become serious in his manners. He is soft-spoken, gentle and very devoted to his better-half. His warm smile plus his fatherly voice easily puts anybody at ease. Don't make the mistake of considering his reserve as aloofness, for he is one of the easy-to-approach people on the campus, whether the campus political pot is boiling or not. When he makes a promise he says it so casually that it doesn't sound like a promise at all, but he keeps his word. When he gets to being the District Forester of Baguio someday, don't hesitate to approach him on your summer trip or honeymoon there. We're sure the cold Baguio climate won't make his heart lose its warmth.

NAPOLEON T. VERGARA

If you want Nap to get red behind the ears, ask him about the Bicol Express episode. Although he doesn't look it, this guy has his eyes peeled for passing skirts. Why (Continued on page 40)

• LITERARY ATTEMPTS •

The Deluge At Bay By T. M. B.

When the skies are clear blue above the Laguna Lake, at Bay, the oldest town of Laguna, and when the tides are low, one may take a banca and about a mile from the shore touch the top of the former churchtower of that town. If the lake water is not turbid, one, by dipping his face, can see the cross under the water. Some people say that when Mount Makiling erupted many years ago, and this fact is borne out by an article written by one Abella Casariego, a forest engineer of the Spanish forest service in the Philippines in the eighteen hundreds, the earthquake and upheaval, the like of which had never been seen before, shook the earth so heavily, that in certain places, the ground caved in, swallowing up houses like a gargantuan monster. In other places where the soil was loose, huge structures like churches, mansions and schoolbuildings; that is, what remained of them, sank in the soggy soil like heavy booted feet going through mud and muck in a swamp.

An old woman, at whose granddaughter's home I happened to be a week-end visitor, told us that the cause of the deluge that had engulfed the town had been the three sisters, Maria Makiling, Maria Mayondon, and Maria Tungtungin, after whom a mountain and two hills were named. Accordingly, they had a quarrel with the Spanish friar, for not waiting for them as he was wont to do when he, after impatiently waiting, said mass one Sunday without them.

"It happened, one Sunday," said Lola Basiang, "that after waiting for almost half an hour for them, and the congregation was getting restless, as a matter of fact, the men folks had started going out, the parish priest decided to say the mass. Then as the host was being elevated, the rumble of carriage wheels and the clatter of hoofs was heard

above the ringing of the bell. Everybody turned around. Then the inaudible whispers growing into a drone attracted the priest's attention. As soon as he had made the consecration, the priest told the sacristan mayor to close the church doors. You should have heard the banging at the door and the hysterical shouts of three maddened women. The congregation was scandalized, and no longer could follow the service; the priest himself was so visibly irritated that when he noted that one of the sacristans was looking around instead of minding his own business, he turned around and losing his temper, he let go one hard kick that sent the poor frightened rogue, rolling down the altar like a beer keg, and got his head stuck between the communion railings that for all his howling and wiggling, he could not get out. The more the congregation was scandalized. The titter of the children and the girls was soon drowned by the guffaws and roar of the men. The priest, like a maddened bull, shouted at the congregation to 'keep quiet in the house of God!'

"By this time, the church door was broken open, and the three sisters, mad like a hornet's nest, rushed up the aisles, crashed through the altar railing's gate, and running up the altar demanded from the priest why he did not wait. Before the palefaced priest could say a word, the three sisters pounced on him like three hungry cats on a fat mouse. When they stopped, the poor priest was a specimen of wrecked humanity. He tried to get up, but it semed that his spinal cord had been broken, and his face was so red, one would have mistaken it for a huge gumamela that was stuck on a priest's robe. Then the three sisters called for the coach driver to pick up the priest and put him in their coach. As the coach drove away, the whole town followed like a swarm of bees.

"Outside the walls through the gate, they saw the sisters opening an iron cage and telling the coach driver to pitch in the priest or whatever was left of him. The priest tried to stand up but could not. He held on to the bars but he sagged down on his knees. The three sisters spat on him and mocked him. 'Now,' said Maria Tuntungin, 'Let's see what you can do. Call on your Master to help you.' And she laughed, and her diabolical laughter echoed from the patio to the walls outside, on which many boys by now were sitting. The priest just mumbled and mumbled, his fingers running from one bead to another on a rosary that hung from his belt

"But the three sisters kept taunting him, and the crowd joined them. The boys clambered down the walls, picked stones, and pelted the helpless priest inside the cage. Soon the men and then the women had become like blood-thirsty hounds, and in bloodcurdling shouts yelled, 'Let's kill him.'

"As the priest tried to say something, a stone hit him between the eyes and he fell with a heavy thud. Then in a very clear voice they heard him say, 'Your town will be cursed. Nothing will be left of your church. The whole town will appear under water.'

"But they only laughed like possessed by a thousand devils. And when the priest was taken out from the cage, they trussed him up in a cornfield. When the sun was setting, his figure was etched against the bloodred horizon like a scarecrow. Then as the evening shadows deepened, eerie sounds as of moaning could be heard. The clouds began to darken the face of heaven. Gusts of wild winds had begun in good earnest. Then a heavy rain followed and kept pouring for days without a let up. Then the waters in the creeks, brooks and rivers began to swell and the lake soon overflowed its rim and the water rushed under houses, flooding the streets and ricefields. Then Mount Makiling began belching forth fire and lava. Α heavy earthquake shook the earth. The church began to crumble to pieces. The tower alone, like a huge finger pointing to an angry heaven, stood. Other buildings toppled over. Trees and nipa huts wobbled and the earth trembled again, opened up, and the flood water in gurgling sounds carried everything with it to the bosom of the earth. Only the tower remained. There it was, pointing to the sky. Then the water rose higher and higher. Those who had remained at home, and had not participated in the blood orgy at the mansion of the three sisters, were able to cling to floating lauans carried by the water from the forest of Makiling. For days and days it rained and the water rose higher and higher. Many died in the flood. Only the good ones were able to save themselves clinging to driftwood. My grandmother tells me that of the many families that once lived in the town only ten survived. And these ten survived by tying the log to which they clung for life to the cross of the steeple. And they prayed and asked for forgiveness for their town and for the eternal rest of the priest's soul. It is said that the two sisters, Tuntungin and Mayondon were turned into barren and ugly looking hills. And the once beautiful summit of Mt. Makiling was scooped out and scarred by fire and smoke and since then it began leaning and perhaps some day will topple down, too."

The Devil's Bride By T. M. B.

There was not a thing which God did, which the Devil did not also like to do. But generally, he was given permission to assume all forms and shapes when God and he wished to put to the test the faithfulness of man, woman, and child. He had succeded on some ocasions and on others, he failed, as in the case of Job. This time it was a woman and he laughed because in his black heart he knew that like Eve, this woman would also fall an easy prey to his blandishments.

And so, one day he decided to see this strange woman, who lived by herself in a very big but haunted mansion, with no one except an old woman, who looked like a witch, and half a dozen black cats. Since the death of her lover, someone whispered that he died because of poisoning, by no other person save this woman, who, in a frenzy of jealousy, poured arsenic in his drink. But the children dared not see her, except through the grills, covered by a tangle of bougainvilla vines, of an old iron fence and behind bushes and trees. She seldom left the house. And this she did only once a year. That was on All Saints' Day. She wore a red dress, though, when everyone wore nothing but black or purple. No one There seemed to be no one visited her. interested in her, nor in her life, so that to the townspeople, she did not exist. Only the gossipers "chewed the rags" about her. Even they, too, tired of her. Until one day something happened, that made everyone in town sit up and take notice.

This began a ripple of ugly gossip. А handsome young man in a four-horse carriage stopped before the rickety gate of a ramshackle, vine-covered iron fence. The stranger, so handsome that many of the town belles gasped for breath at the sight of him, wended his way on the weed-covered walk and with the smoothness of gait never seen in a human being, he sailed towards the door. The hard knock brought out the old maid, who rushed in, bringing to the dour her mistress. From that day, every afternoon until late at night, the young man was seen visiting the strange woman.

Then one Sunday, the somnolent town awoke from its lethargy when the parish priest announced from his pulpit that the strange woman was getting married. The groom, the young man. It was agreed that the priest would solemnize at her home. The whole town was invited, but only the curious ones went. And what was served there became the talk of the town for months. The food was delicious beyond compare. The music seemed to come from heaven. Everybody wanted to find out who the groom was.

On the night of the wedding, when the groom entered the bride's bedroom, he revealed himself at last. Two horns protruded under his silky curly hair. And in his slippered feet, it was not hard to distinguish the goatlike hooves that were his feet. The strange woman was not afraid. She told the devil that she would not allow him to sleep with her until the ninth day. And the devil sulkingly had to sleep in an adjoining room. He cursed himself for his ill luck. But he thought it best to bide his time. After all, what is nine days in a devil's life. And su he patiently waited. In the meantime, the strange woman had started saying a novena to St. Anthony, asking him to help her, if he was really miraculous, and to see to it that the devil could not touch her. On the ninth day, when the devil tried to enter, he was met with a balderdash that sent him reeling. And before he could recover, another blow felled him again. Not wishing to get additional punishment, he rushed out of the room, and locked himself in his room nursing three big bumps on his head.

The second night he tried again to enter the woman's room. All of a sudden he felt a whiplash on his back that bit into his skin like a million scorpions. It was not long. The instrument that sent cold shivers up and down his spines was only a rosary. But a rosary to a devil is more painful than leather thongs.

And what was worse, the food that was served by this woman was no better than hog wash. The toast was no toast at all. It was bread turned charcoal. The soup was like mud, and what was worse, it was cold as ice. Every time he sat down, the devil was afraid that he was getting ulcers, not because of the food but because of worry and anger. Anger gnawed at his heart and soul.

When he could no longer stand it, he decided that there would and should be a showdown. But when he started the argument, he found that this reticent woman could be turned into a machine gun of words that burned like acid. Then, when he knew that he was no longer a match for this virago of a woman, he decided to go back to Hades.

When he arrived, the lesser devils were surprised to see how changed he was. He was pale and every time he heard a rustle as of starched skirts, he would jump as if stung. Every time there was a knock at the door, he would shout, "Find out first who knocks . . . if it is a woman . . . don't let her come in."

"How do we know she is your wife?"

"Ask me no questions!" he bellowed. "Just take a quick look at her and if she is different from the rest . . . then it is she. Then by the seven tails of the lightning bolt that door."

Since then, it is said, that that strange woman's town became devil-free, the people went to mass every day, they took holy communion, not as the church ordered them, but because they felt it their duty to be good and religious. There were no heretics. No bloodshed nor any crime . . . at least until the strange woman died. But she was known to the people who, after all now could gossip knowing that she was ten feet below, as the "Devil's Bride."

A wise man reflects before he speaks; a fool speaks, and then reflects on what he has uttered.—Delile

A quick and sound judgment, good common sense, kind feeling and an instinctive perception of character, in these are the elements of what is called tact, which has so much to do with acceptability and success in life.

* *

Speaking much is a sign of vanity; for he that is lavish in words, is a niggard in deeds.

Life without danger would be like meat without mustard.—J. B. S. Haldane.

* * *

The principal products of the Philippines are sugar and politics.—Roger Babson, Statistician.



FORESTRY LEAVES

Moving-Up Day Scenes













1. The Passing of the key ceremony, Miss W. Juni, Forestry Muse holds the Torch of Knowledge. 2. For. T. Serevo speaks for the alumni. 3. Michael Briones, violinist, plays an encore with Ray Paguio at the piano. 4. Sen. Briones addresses Moving-Up Day audience. 5. Miss Grace Turla, soprano, thrills audience with a Kundiman, Ray Paguio at the piano. 6. Part of audience titters at a speaker's wisecrack. 7. For. Soriano argues at U.P. Forestry Alumni Asan. Meeting.

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For. Macaraeg hands contribution of Manila B.F. personnel to Mrs. Lara, widow of Ranger Lara.

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QUIRICO D. TAN Tuguegarao, Cagayan Beta Sigma Frat



TOMAS TOLENTINO Bayombong, N. Vizci



Silviculture class at Quirino Bridge, Ilocos Sur.



FELIMON M. VIDAL Pila, Laguna



Prof. Zamuco explains a "loggin operation".



Outdoor examination in Wood Technology.

Freshmen



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ANASTACIO B. SISON Aguilar, Pangasinan Staff member, Forestry Leaves, member, Pensionado Club



PABLO TELAN Abiau, Bambang Nva. Vizcaya Member, YMCA



ROMEO ULANGKAYA Cotabato, Cotabato Pensionado, Office of the Pres., UPSCAn



VICTORIANO P. SORIANO Bengui, Ilocos Norte



ISABELO C. TOBIAS, Jr. Baggao, Cagayan UPSCAN



JUAN C. VALDEZ Tayug, Pangasinan



SIEGFRED U. TABANGII Ballesteros, Cagayan



ANTONIO P. TULLAS, JI Pulot, Lagayan, Abra



MARIANO Z. VALERA Masbate, Masbate Member, Pensionado Club, UPSCAn



ZUERO T. VEDAD Gingoog, Mis. Orientel UPSCA member United Workers Union



CALIXTA N. VERZOSA Aguilar, Pangasinan Freshman class treas. UPSCA member



BERNARDO C. VIRAY Lingayen, Pangasinan UPSCA member



CARLOS L. WANDISAN Conner, Apayao, Mt. Province



FILAMOR M. YADAO Claveria, Cagayan Member, Pensionado Club



ALFREDO C. ZAMORANOS San Fernando, La Union



LEON T. ZAPANTA Gingoog, Oriental Misamis



SANTIAGO G. ZAYAS Jasa-an, Mis. Or. UPSCAn





MANUEL G. BARLICOS San Jose, Nva. Ecija UPSCA member



TOMAS M. BINUA Tugatog, Malabon, Rizal





Coronation Scenes



Johnsteines at Nors Wilhelmond A Juni by Mrs. Piller & Arrand assisted by Mr. Emilio Mar Antonio.





At Work















Photos courtesy of The Manila Times

1. Timber inventory class on a Makiling ridge. 2. A busy hour in the College library. 3. Prof. Mabesa lectures to kiln-drying class. 4. Silviculture student pauses from work to quench thirst. 5. Class in Forest Pathology learns about wood-destroying fungi. 6. In forestry parlance, this is D.B.H. (diameter, breast high), 7 S.E.A. FAO Logging Trainces at Los Baños.

TWELFTH MOVING-UP DAY CELEBRATED

President Pro Tempore Manuel C. Briones stressed the importance of maintaining our forest wealth and lamented the fact that the government has been negligent in looking after the needs of the Bureau of Forestry in his address before the graduating classes of the College of Forestry during the convocation program celebrating the 12th Moving-Up Day last March 21, 1954.

President Vidal A. Tan of U.P. awarded the certificates to the graduate rangers and prizes to the winners of the 11th annual oratorical and Spanish declamation contests before introducing the guest of honor. Musical numbers were furnished by Miss Grace Turla, soprano, Mr. Michael Briones, violinist and Mr. Ray Paguio, pianist, all of the U.P. Conservatory of Music.

The community was treated to a movie show with the College of Forestry projector, a recent donation of the alumni to the student body organization, during the evening. The following day, the seniors honored the faculty with a dinner at the Makiling Swimming Pool with Gov. Dominador Chipeco of Laguna as guest. During the dinner, the Governor pledged to act as "messenger" of the faculty to appraise the President of the need for rehabilitating and expanding the College of Forestry building in connection with a bill recently filed in Congress appropriating **P185**,000.00 for the College.

* *

FELIPE AMOS IS APPOINTED FORESTRY DIRECTOR

Senior Forester Felipe R. Amos, until recently division forest inspector, has been appointed director of forestry by President Magsaysay. He took his oath of office last Saturday before Executive Secretary Fred Ruiz Castro.

Amos joined the bureau as ranger in 1915 and rose to ranger-scaler, government pensionado to United States, district forester, UP college of forestry assistant professor, acting division chief, senior forester and division chief. He was the first Filipino to become district forester of Zamboanga and had been chief of various divisions in the bureau.

Considered by his colleagues as a "foremost utilization man," Amos was assistant director of forestry in 1944 and was connected during liberation with the 1002nd Forestry Battalion of the US army as assistant director of concession.

He finished his secondary education at the Manila High School, and obtained his ranger certificate from UP in 1915, his bachelor of science, in forestry degree from the University of Washington in 1922, and his master's degree from Yale university in 1923.

He is a member of the national research council of the Philippines, International Society of Tropical Foresters, International Union of Forest Organization, and Society of Filipino Foresters. The bureau, the new forestry bureau head said, will carry research projects to study areas that could be placed under sustained-yield management, seed trees to find out the minimum number that should be left for adequate regeneration of the logged-over areas, and problems of small sawmills and their solution.

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SILVICULTURE, LUMBERING AND WOOD PRESERVATION STUDENTS UNDERGO FIELD TRIPS

Classes in silviculture, wood tech 3 and lumbering 1 underwent separate field trips during the second semester.

The class in silviculture headed by Prof. Teodoro Delizo and Forester Domingo Jacalne went to the Ilocos regions via Baguio City. In Baguio, they visited the forest nurseries at Camp 4 and Pakdal together with the reforestation projects within the rity limits. City forester Lizardo gave the students an interesting lecture on the nursery and plantation practices in the Mt. Province.

The Tangaoan Reforestation Project in Piddig Ilocos Norte and the Paraiso Ref. Project at Nueva Era, Ilocos Norte were also visited. The Paraiso Project is considered the best site for silvicultural studies and instructional purposes because of its being located in an utterly barren and desolate country where immediate planting is imperative. Foresters Makil, Zumel and Ranger Ancheta gave a series of lectures to the boys. On the return trip, the Caniaw Ref. Project at Bantay, Ilocos Sur was visited and there, For. Valera talked about the prospects of planting Benguet pine in that region.

Meanwhile, the Wood tech 3 class under Forester-Rosario Cortes visited the Atlantic Gulf & Pacific Co's. Wood Preservation Plant at Farola, Tondo, Manila. While there, they were taken around the plant by plant superintendent Reyes who most graciously explained the different processes and operations that the company practiced. The students observed the actual operation of treating lumber by the Wolmanizing process. It was also there that they observed how materials were brought in and transferred from cylinder cars and retorts. The visit to the plant made lasting impressions on the students

GRADUATION ISSUE-APRIL, 1954

regarding the different steps that are required in treating poles, piles and lumber with preservatives.

More recently Prof. Gregorio Zamuco took his Lumbering 1 class to Tagkawayan, Quezon where they spent four days at the Sta. Cecilia Sawmills Inc., compounds and concessions. While there, they witnessed actual logging operations which they have studied and observed in College with the aid of miniature replicas of the different logging equipment. At the mills, they observed the different steps in sawing a log into finished lumber and were also informed of management practices.

* *

GERMAN FORESTER DR. KLAUS BREHME

Forstmeister Dr. Klaus Brehme recently visited the Forestry Campus, College, Laguna escorted by Forester Valentin Sajor of the Manila Office. They visited also the forests of Tagkawayan, Quezon Province. Dr. Brehme is a member of the "International Society of Tropical Foresters" wherein several Filipino Foresters are members including Sajor. This German Forester was passing through Manila on the Norwegian M.S. TAI YIN of the Wilhelmsen Line from Germany to Japan. He is conducting a research work on the occurence of Japanese larches. a timber species which is highly regarded by the Western World for its fast growth which is good for reforestation.



Dr. Brehme's special spheres are tropical forestry, forestry nursery practice and afforestation of wasteland. His chronological and climatological investigations concerning the annual rings of larches within the indigenous larch-stands above the Koenigsee in Batarna. Germany, created great interest among European foresters. He is also a contributor to the World Forest Atlas being edited by the "Federal Institute for Forest and Timber Economy" in Reinbek bei Hamburg, Germany. He intends to spend several years in tropical countries. Apparently his territory is tropical Asia and the Far East.

* * *

FORESTRY PROJECTS APPROVED

The Philippine Council for United States Aid and the Foreign Operations Administration mission have jointly approved a P1,286,000 project in forest, coil and water management, it was announced yesterday.

The project to be implemented by the bureau of forestry aims to take inventory of the growing stocks, survey and mark boundaries for protection, recreation, exploitation and pasture purposes. It also plans to protect public forests from fires, illegal cutting, and other forms of forest destruction by means ot systematic forest patrol, and at the same time stimulate forest productivity as well as protect vegetated areas from flood-run-oft and soil erosion by establishing experiment stations.

The project includes the rehabilitation of the University of the Philippines college of forestry to enable it to accommodate more students and turn out more graduates needed by the bureau of forestry and the lumber industry. However, the reconstruction of the college of forestry in Los Baños will depend on how soon the U.P. can put up funds to watch the sum of P167,000 set aside in the counterpart budget.

The project was granted a dollar allocation of \$204,000 in addition to a counterpart peso budget of **P**878,00

IMPORTANCE OF A GOOD UNIVERSITY

Good education is not determined by the number of courses offered, the number of credits earned, the number of hours a teacher appears in the class room, by the clock hours, credit hours, per capits student cost, nor by any other formal or artificial tests. Good education comes from contacts with great scholars, teachers and men of character, in an environment of adequate libraries and other educational facilities.—E A. Gilmore.

A good teacher is merely a good signpost. So don't try to do too much for your boy. Your job is to help him help himself, not to help him shun responsibility.—Henry Ford.



FOREST OFFICERS ENDS TRAINING IN SCALING

To cope with the scaling work in District No. 38, Rangers Pedro S. Agustin, Prudencio Supnet and Cirilo B. Serna were temporarily detailed at Anakan to undergo a one month training in scaling under Supervising Ranger and Lumber Inspector Gregorio L. Santos. The training started from October 19 to December 13, 1953 with the Anakan Lumber Company as the field of training.

* * *

ONE PLUS ONE

One of the most eligible bachelors of the Bureau of Forestry, Jr. Forester Segundo P. Fernandez, has finally risen from his hibernation in the cobweb of solitariness to become a partner for better or for worse. He married last December 26, 1953 at Basilan City.

The bride was Miss Juliet Castillo, beauteous practicing nurse of Basilan City and alumna of the Zamboanga General Hospital School of Nursing. Forester Fernandez, presently assigned in the forestry office at Basilan, is a University of Manila law graduate and an alumnus of the UP College of Forestry.

Intermarriages among the bureau of forestry personnel have become, it seems, popular. The latest is between Mr. Ricardo Reymundo and Miss Soterania T. Kaabay who exchanged "I Do's" last October 17, 1953.—TAS

* * *

FORESTRY CIRCLE HOLDS CORONATION AND BALL

In the artistically decorated social hall of the Philippine Chamber of Commerce building, lovely Miss Wilhelmina A. Juni, the daughter of Forester Deogracias A. Juni, was crowned amidst gaiety and splendor as "Miss Forestry of 1953-54" by Mrs. Pilar Acuña-Amos, wife of forestry Director Felipe R. Amos. It was the consensus that this year's affair was the most colorful and well attended, and beat all previous similar affairs of the Circle. The famed master of Tagalog poetry and "Hari ng Balagtasan," Mr. Emilio Mar. Antonio, delivered a literary invocation exalting the Muse of Forestry. The other beauties who were crowned were misses Ester Villanueva as "Miss Valentine," Emma Tumaneng as "Miss Dream Girl" and Juanita D. Espiritu as "Miss Heart Throb."

The program included musical selections by Mr. Jess Lalinde and His Chalcedonic Orchestra, opening remarks by President Teofilo A. Santos, invocation and coronation of "Miss Forestry of 1953-54" and the other three beauties, closing remarks by Director Felipe R. Amos, ball and refreshments. The entire program was emceed by Mr. Estanislao B. Samonte, public relations officer. Selected musical pieces were furnished by Mr. Jess Lalinde and his orchestra.

* * *

FROM THE FIELD

COMMUNITY MEETINGS

LC Party No. 37, Davao City.—LC party chief Anselmo S. Garcia appraised the native Mandayas of the purpose of the land classification work in the barrio and vicinity. The affair was in connection with the transfer of duties rites of barrio lieutenant last January 17 at Barrio Maya-on, Municipality of Saug.

District Office, Cabanatuan City.—Asst. Forester Maximo C. Felix and Ranger Rodrigo R. Ardieta attended the Rural Reconstruction assembly held last February 2 at the Bureau of Plant Industry nursery at Valdefuente under the auspices of the Nueva Ecija PRRM.

District Office, Sta. Cruz, Laguna.—Ranger Leoncio C. Dalena emphasized the necessity of maintainng proper balance of soil cover and the protection of forest resources to the people of Sta. Maria. The speech was occasioned by the inauguration of the Sta. Maria Community Center of Namfrel.

Polillo, Quezon.—Sr. Forest Guard Agapito A. Pueyo warned his listeners against illegal entry in public forests at Libo Village last January.

* *

BASILAN TO GET MONEY FOR FOREST PROJECTS

The Forestry District Office in Basilan city will be the recipient of a sizable share from the 2-million peso fund approved under Forest, Soil and Water Management, Counterpart Project No. 482 (Philcusa) FOA Office in Washington,, U.S.A.

District Forester Marcelo of Basilan is being in-

GRADUATION ISSUE-APRIL, 1954

formed ahead to organize and plan the research work and investigation to be undertaken under the said project in the implementation of the objectives of the "sustained-yield" management of the Basilan forest.

At present, the Basilan City Forest District (No. 44) of the Bureau of Forestry has the most number of technical forestry men compared with other districts. More men will be added to the present staff for the project. (BGG)

* * *

MORE DONORS TO MOVIE PROJECTOR FUND

1.	Forester	Magdaleno	Caayupan	₽5.00		
2.	Forester	Policarpio	Narciso	5.00		
3.	Forester	Pablo O.	Rombaoa	5.00		
3.	Forester	Roman A	quino	10.00		
BUREAU CERTIFIES ALIENABLE LANDS						

Forestry Director Felipe R. Amos recommended to the department secretary of agriculture and natural resources, as per field surveys conducted last month by parties of foresters and rangers under the FOA-PHILCUSA fund, that there were 12.264 hectares certified forest land no longer needed for forestry purposes as alienable and disposable lands and 4,167 hectares classified as timberland in the following places:

Veruela, Agusan, 1,960 hectares; Sipocot, Cama-

rines Sur, 976-145; Iligan, Lanao, 420; Bayawan, Negros Oriental, 2,276-1,392; Lavezares, Samar, 6,632-2,630. The first figures represent alienable and disposable lands, the second timberlands.

Of the 30 cases of individual land classification requests acted upon, 4 cases covering a total area of 454.05 hectares within the unclassified public forest were certified as not needed for forest purposes; 8 cases were found within areas already certified as alienable and disposable lands; and 18 cases were found within areas certified for forestry. Of the 2 cases of public land application acted upon, 1 case covering 23.75 hectares within the unclassified public forest was certified as not needed for forest purposes; and 1 case was found within area already certified for forestry.

WISDOM IS ACTION

Two persons take trouble in vain, and use fruitless endeavors—he who acquires wealth without enjoying it, and he who is taught wisdom but does not practice it. How much soever you may study science, when you do not act wisely you are ignorant. The beast whom they load with books is not profoundly learned and wise; what knoweth his empty skull whether he carrieth firewood or books—Saadi.

* * :

Deliberate with caution but act with decision; and yield with graciousness or oppose with firmness.



• EXCERPTS & ABSTRACTS •

SPECIAL TREATMENTS TO HASTEN GERMI-NATION OF SUPA (SINDORA SUPA, MERR.) SEEDS

By PEDRO B. SALVADOR

Supa, one of the important Philippine hardwoods for construction purposes, has been greatly reduced owing to the fact that it has been one of the favorite species cut for heavy construction. It is durable and well favored for floorings due to its oily substance that makes it shiny dark brown.

In this study the writer attempted to determine the best method of hastening the germination of supa seeds, the number of days necessary to start the seeds' germination and length of time necessary for all the seeds to germinate, and the germination per cent of supa seeds under different treatments. It was found out that seeds soaked in warm water with a temperature of 50°C. (122°F.) and allowed to cool for 15 hours showed the best and quickest germination because it gave the highest percentage of germination of 80 per cent, shortest period of germination of 25 days, and earliest germination. Moreover, the method is easy that even a layman can easily apply it. It was also found that seeds soaked in tap water for 15 hours gave 73 per cent germination; 67 per cent for seeds stratified with moist sawdust for 15 hours; 66 per cent for seeds soaked in water with initial temperature of 50°C (122°F) for 30 hours; 65 per cent for seeds with cogon mulch; and 63 per cent for control. The seeds treated with concentrated sulfuric acid for 5 and 10 minutes respectively did not germinate.---A. I. Tiam

* * *

STUDY ON THE STABILITY OF ONE-HALF INCH APITONG WOOD UNDER ATMOS-PHERIC CONDITION WHEN BOIL-ED IN WATER AT DIFFERENT DURATION

By Domingo M. Lantican

Apitong (*Dipterocarpus* sp.) is one of the most widely distributed species in the Philippines and is available in great quanties. Its wood, however, happens to be one of the least stable of Philippine woods in dimension so that a proper method of treatment is necessary to minimize as much as possible the effect of atmospheric moisture.

In this study samples of apitong wood 2" x $1\frac{1}{2}$ " x $1\frac{1}{2}$ " were subjected to boiling treatment for different lengths of time ranging from $\frac{1}{2}$ to 3 hours. It was found that boiled apitong wood is more stable than unboiled samples, with wood boiled for $\frac{1}{2}$ hour as the most stable, although the effect is very insignificant. It was also found that boiling had a probable leaching effect on the gums, tannins, and other water soluble materials and might have forced out the resin contained in the wood. Boiling caused a change in the color of the wood from pinkish brown to greyish brown. The samples boiled at different periods were found to be more stable than the untreated samples but it does not follow, however, the expected tendency that the longer the time wood is boiled the most stable it becomes, because the samples boiled for $\frac{1}{2}$ hour showed the lowest mean variation than those boiled longer up to 3 hours. —A. I. Tiam

* * *

FORESTRY IS OUR HOPE R. R. FENSKA Bartlett Tree Expert Co. White Plains, N.Y., U.S.A.

Without forests our standard of living would be greatly reduced; in fact, it is doubtful if mankind could survive on this earth without them. Our existence is so integrated with their influence that we can hardly think of an act which does not, either directly or indirectly, influence our lives.

The average person usually thinks of the economic impact of wood and wood derivatives on mankind, yet it can be demonstrated that the by-products or indirect influences are major factors in the welfare of the human race. Engineers have conclusively demonstrated that soil erosion is a factor which man must solve if we are to continue to occupy this earth.

A forest cover, or some kind of vegetation, at the headwaters of our rivers is essential to conserve our water supply and prevent the erosion of our agricultural soils. At the present time the soil is washed into the ocean at a faster rate than it can be formed from underlying rocks and minerals. Without a forest cover our earth would soon look like the surface of the moon-desolate, barren, and frightening. A forest cover on our watersheds is one of our most pressing problems today.

Pure stands of conifers are not the ideal cover for watershed protection; rather the mixed, unevenaged stands of conifers with a scattering of deciduous trees. The litter from hardwood trees contributes sufficient organic mulch to maintain a productive soil. Clear cutting of any sizable stands and exposure of the soil to erosion must be eliminated.

Furthermore, the unevenaged mixed stands regenerate themselves by natural seeding and avoid the (Continued on page 40)

GRADUATION ISSUE-APRIL, 1954

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RAMON MAGSAYSAY 187-B Manga Avenue, Sta. Mesa P.O. Box 1290 Manila, Philippines

December 13, 1953

Dear Mr. Cenabre:

I am exceedingly pleased to receive your letter of November 15th. Thank you for your kind wishes which have given me more strength and inspiration to face the task that lies ahead.

With respect to your request, I deeply regret that I cannot yet accord it the attention it deserves, as at the moment, there are pressing and vital matters in my hands the three dimmediate action preparatory to the turn-over of administration. May I suggest, then, that we thresh this out sometime in the future?

Allow me to extend to you my sincerest wishes and best regards.

Cordially yours,

(Sgd.)RAMON MAGSAYSAY

Bureau of Forestry, Manila November 15, 1953

Mr. Ramon Magsaysay President-Elect of the Philippines 187-B Manga Avenue, Sta. Mesa

Manila

My dear Mr. President:

With reference to your letter to the undersigned dated October 17, 1953, in connection with your recent candidacy for the President of the Philippines:

Please accept my heartiest congratulations for your presidential landslide victory in the last elections. The people have spoken freely and spontaneously in your favor and I am so happy for you. You indicated in your letter the sorrowful plight of our brothers in the barrios and I know you will take great interest in their welfare now that you are chosen head of the Philippine Republic. You have seen the conditions of the country in general during your campaign and perhaps you also have seen how our forests have been so devastated on the mountains and hillsides. I speak as one connected with the Bureau of Forestry where I have spent the best years of my life as a devoted public servant.

This letter is being written to you therefore to congratulate you firstly for your howling success in the last Presidential elections and to request you secondly, to remember to say something about the importance of our forests in your messages in the future so that the people will know the value of forests, that is direct and indirect benefits derived from the forests by the community and the people in general. The people of the Philippines should be made to know of the value of conserving said forests. A word from you Mr. President now before your assumption to Office and again after about these will save the public forests and established national parks from further wanton destruction.

With best wishes for a successful forthcoming administration, I am

Yours very sincerely, (Sgd.) AGAPITO L. CENABRE

* * *

Mr. Nicanor P. Lalog 704 Lowich Building 2026 St. Charles Ave. New Orleans 16, La. Dear Lalog:

I received your letter of January 6, mailed at New Orleans, Lousiana, U.S.A. We appreciate your constant and continued interest in our work out here and for all the arrangements you have been making to improve our working facilities and conditions.

We will include the Southern Forest Experiment Station, 704, Lowich Building, 2026 St. Charles Ave., New Orleans 13, Lousiana, in the mailing lists of the Philippine Journal of Forestry, *Forestry Leaves*, and Filipino Foresters. We will look forward to the receipt or arrival of the 1952 Annual Report of the Station which will certainly help us in our work.

I am very glad to hear about Mr. Wakely and of his book on Silviculture, perhaps mainly based on the Southern States conditions. If you see him again, please tell him I am inviting him to come out here and help us.

This letter may also be a reply to your letter of December 1, 1953. I may inform you that the experiment station buildings at this place and at the four other stations will be started soon, to be finished about June 30, 1954. The Forest Products Laboratory is about 20 percent up. Forester Amos is the new Director of Forestry. Write us again.

Sincerely yours,

(Sgd.) FELIX FRANCO Chief, Division of Forest Investigation

GRADUATION ISSUE—APRIL, 1954



SUNSHINE CORNER

A candidate for graduation went to see his professor in lumbering and said with dignity: "Sir, I do not believe I deserve that grade of 5 you gave me.

Replied the professor: "Neither do I, but that is the lowest grade the U.P. Code allows me to give vou.

The class in lumbering 2 was having its mid-semester exam. One particularly witty student was stumped by a question which read: "State the number of board feet of lumber exported to the U.S. for any given year." Finally, the student's face brightened and he wrote: "1900-none."

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The class in Spanish is a source of unexpected things. Une day the professor asked: "Que es el arroyo?" The student who answered emphatically said: "El perro es un dog."

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Here's another-"Ben," said the Prof., "give the subjunctive of the verb "abrir." Obviously Ben did not know so the professor asked, "From where are you Ben?" "Abra, sir." "Correct, you knew it all the time, after all," said the professor.

*

At last, after a lengthy explanation illustrated by two blackboard-full of equations, Mr. Recto said, "So now you see that X is equal to zero." A bored student let out a long sigh and said, "All that work for nothing."

*

An instructor was boasting that a fool can ask more questions than a wise man can answer.

To which a student remarked unthinkingly-"Ah, that's why so many of us fail in the exams you give us.

When Dr. Tan asked Mr. Malabago why he gave a 4 to a forestry freshie taking P.E., Tuting demurely answered: I caught him cheating in the exam; he was counting the teeth in his mouth when he came to the question "How many teeth does a normal adult have?"

* *

A faculty member of the College got in line and after more than half an hour of sweating, elbowing and edging forward, he reached the ticket booth of the Holiday On Ice show at the Boys' Town Festival. Just then, to his chagrin and frustration, the ticket seller closed the ticket window and hung the "All seats taken" sign! Can you identify him?

A college fraternity was on the carpet for its objectionable initiation practices and a sophomore was being investigated. The forester in charge, red with rage continued, "So you confess that this poor neophyte was brought bodily to the carabao wallow and dumped in? Now what part did you take in this disgraceful incident?"

Answered the sophie (very meekly): "The left leg, sir."

Laundrywoman to student living in Dorm I, "And shall I take this little rug and wash it too?"

Student: "Oh no, that's my roomate's towel."

Glancing at his watch, the professor saw he had only half a minute to make the 6:45 bus. Taking a gulp of coffee while reaching for his hat, he dashed out the door and down the street but when he looked for the bus stop that was not there, he remembered he was in the province on vacation.

> * ٠

When "Boss" Juinio was still here in college, he got the goat of the traffic policeman at the junction one day while hurrying all the way from Bay in his Ford sedan to his classes in Forestry.

Said the traffic cop, "I signaled you to stop but you didn't." "Did you not see my hand?"

Answered "Boss,"-""How could I, with your gloves on?"

"Boss" was absent that day.

*

* A student was trying to convince his professor that he actually added a series of figures.

How do I know you added them five times, as you claim," said the professor, eyeing the student narrowly.

"Here sir, are the five different answers I got."

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Young boy to another: My brother in college is an author. He has published many articles and stories.

Other boy: Does he write for money?

First boy: Sure, he does. In every letter to Dad. ۰ * *

Forestry student to high school classmate of his: "And what are you taking now?"

"Medicine," replied the other.

*

"Why, are you sick?" queried the forestrian.

*

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Freshman home on vacation when asked by his father how he stood in class said proudly, "On top of the list" and then quite inaudibly, "of those who failed."

GRADUATION ISSUE-APRIL, 1954

THE MIGHTY . . .

(Continued from page 24)

do you think he wears those sun glasses for? But whether someone has staked a claim to his heart or not, he keeps it a military secret. My mystic feelings tell me however that something is afoot with regards to this fellow's under cover tactics in carrying out his amorous battles. I sometimes sense he uses strategems of the great Napoleon in his quest for the Dulcinea of his heart.

With the rare kind of brains that this fellow has, I would like to see his smoke after he graduates and starts going places. He's a hard one when angry but a sure-fire formula to cool him off is to offer him a couple or more bars of Magnolia pie. Guitar playing and reading occupy his spare moments with Damon Runyon and Western comics as favorites.

-BCA

FORESTRY IN THE . . . (Continued from page 34)

(true mahogany). Reforestation work began only last 1951.

MT. MAKILING PARK PROJECT PROPOSED

Plans for the development of the Mt. Makiling National Park are under way, Agriculture Secretary Salvador Araneta disclosed last week.

According to the committee assigned on the project headed by Director Juan M. Arellano of the Planning Commission, three aspects in the preparation of the development plan have been agreed upon, namely; cultural, health resort, and recreational.

The committee further made the following recommendations: (1) request the bureau of public works to repair and maintain the road leading to the summit of Mt. Makiling, (2) the necessity of comfort stations for the convenience of picnickers and visitors, (3) the establishment of a bird sanctuary, (4) request the National Power Corporation to rehabilitate the hydro-electric plant at Talon Falls in Los Baños to provide light and power.

The proposed general development plan covers Camp Eldridge, the Thermal Batch at Los Baños, Pansol, Alligator Lake, and Mt. Makiling proper.

Other members of the committee are Dr. Eduardo Quisumbing, Manuel Torres, Director Amos of Forestry and Metropolitan Water District Manager, Manuel Mañosa.

A BAMBUSETUM . . .

(Continued from page 22) development and the building up of the plant collections which are indispensable materials for study, largely for their economic potentialities. All forest officers, especially those of Abra, Pangasinan, Quezon, Polilio, Mindoro, Bukidnon and Davao, and those who are charitable enough to lend a hand, can help in this search for more species of bamboos in their respective jurisdictions and in collecting them for the bambusetum. At least 3 pieces of 2-meter bamboo culms with roots, can be collected, wrapped either in wet gunny sacks, asphagnum moss or banana sheaths, properly labelled, and sent to the Division of Forest Investigation or the College of Forestry, UP, College, Laguna.

While the *bambusetum* has a humble birth, its development and maintenance should be carried on for all time not only as a collection of living plants but above all as a monument of the solid and patent interest, deep appreciation, and cooperative efforts of those who in one way or another have helped in bringing it about in the interest of science and the industries dependent upon it. To' carry on the work already begun, it is obviously necessary for forest officers as well as those who are bamboo conscious to do their part even beyond the call of duty as a token of their love to serve their country and people.

EXCERPT AND . . . (Cont. from p. 31) cost of reforestation. Wind-throw is also less in a mixed, unevenaged forest.

The species to use are the ones best suited to the climate and the site, with emphasis on native trees.

It is important that a forest, or some kind of vegetation, is maintained at the very head-waters of an area to avoid the gathering of the momentum of the downstream flow.

The maintenance of such a valuable heritage as our soil should be in the hands of trained specialists in which the forester is an important factor. It is our only hope for the survival of the human race on this earth.

Reference: Eighth Pacific Science Congress of the Pacific Science Association and the Fourth Far-Eastern Prehistory Congress Abstracts of Papers, pp. 345-346.





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THE FINAL TEST

At long last, they who have persevered and toiled not over conscientiously are graduates, with a ranger certificate or a B.S.F. diploma to show the world that they have successfully completed the requirements of their course. They are ready to tackle their chosen tasks, confident that with the many years of intensive training behind them, no problem is too hard to solve, no obstacle too high to hurdle.

As they leave the familiar forest haunts and chalk-dusted classrooms where many study-filled days were spent to offer their services wherever needed, they are no doubt, filled with mixed feelings of curious apprehension over the future, of sorrow over parting from friends and faculty, and of joy over the culmination of an uphill struggle. No more confusingly voluminous lectures, no more exhausting field work, no more exams to sweat over. The faculty has tirelessly taught and trained them through the semesters until it has finally placed its stamp of approval and faith in them.

The graduates now face the final test—the lifelong test of *actual service* where their training, character, ability, and fortitude have to undergo the grind. To justify the faith that the faculty has placed in them, they must pass this final test with flying colors. Here is good luck to them!—BCA

THE AID HAS COME

More than a year ago, the MSA (formerly ECA, now FOA) AID started rolling into the College of Agriculture. When, we wondered, would the Aid reach us? We received a heart-warming answer from a reliable source: "Soon." But how soon is "Soon"? Nobody knew, but in this case, it was almost two years. While buildings cropped up like mushrooms in the College of Agriculture, we did not get anything to boost our morales with. In despair, we almost gave up hope.

But now the long wait is over, and the situation has changed. Despair has turned into bright prospects, for with the hum of the machines and the knock of the hammers, the Forest Products Laboratory is gradually coming into being, and it is not coming alone. With it will be a modern electric sawmill, a Central Experiment Station and, if the good old U.P. wills it, a new and spacious College of Forestry building. Our long and painful waiting is at last rewarded; the AID has come.—N.T.V.

A GREAT LOSS

And now he is gone. For he responded to the sudden call of his Creator. He left the earth to return no more. But in taking his eternal leave from this world where he had faithfully dedicated much of his God-given life to the service of his country, he was able to establish a monument not so much for his own glory as for those who now live—may those who in their hours of despair and impatience almost abandoned the ship now remember him, the man who stuck to his job to the very end with undiminished zeal and unselfish devotion.

This man was Sr. Forester Placido Dacanay who died of coronary thrombosis on the fateful day of February 10, 1954, at the age of 60.

The story of Philippine Forestry can not be told in its entirety without mentioning the late Sr. Forester Dacanay whose labor has added several pages, important ones, to the long tale of survival and progress that is the story of forestry in our country. Until his demise as chief, Division of Reclamation and Reforestation, he left no stone unturned to make reforestation—his pet project—gain a big headway. His second name could very well be *Reforestation*.

I would like to conjecture that within the split seconds before he took his last breath the thought that he was going to die not in vain passed his mind. Indeed, he died not in vain. For his achievements have considerably helped promote the cause of Philippine forestry.

Although he died not in vain, yet I can not help feeling, with tears in my heart, that his death is a great loss because there were many things that will make him remembered long.

For as a man, he was a gentleman.

As a boss, he was understanding, yet upright.

To his family, he was a devoted husband and a loving father.

As a public servant, he was faithful and patriotic.

And above all, he was a friend to everyone-T. A. Santos

(Footnote: The late Forester Dacanay, to me, had been a second father since 1935. I can recall with nostalgic feelings the father-and-son-like association we had had in the College of Forestry at Los Baños, during pre-war, Japanese occupation, post liberation years and up to the time of his death. We met on Dasmariñas, Manila, on February 8, 1954. It was high-noon then when I met him. He told me that he was going home because he could not hold on until 4:00 in the afternoon. He gave me his last fatherly advice. Then we parted ways. And that was the last time we met.)

HOUSE BILL 324

There is now filed with the lower house a bill jointly sponsored by Congressmen Jacobo Gonzales and Florencio Moreno which seeks an outlay of **P185**,000.00 for the rehabilitation and expansion of the College of Forestry building. The bill seeks this

allotment as the counterpart of the PHILCUSA aid in the amount of $\mathbb{P}167,000.00$ for the above mentioned purpose. The counterpart was supposed to have been put up by the University of the Philippines but as the U.P. found itself in financial handicaps, it passed the task of raising the counterpart to the College itself. Consequently, a bill, prepared by the Bureau of Forestry, the director of which is concurrently the Dean of the College of Forestry, was sponsored by Congressman Gonzales. The original amount asked for was $\mathbb{P}200,000.00$ but the lower house Committee on Public Works although sympathetic with our cause slashed it down to $\mathbb{P}185,000.00$. But unless the counterpart could be put up on or before June 30 of this year, the aid would be withdrawn.

The alumni have cooperated, to a man, with the forester-in-charge, who left no stone unturned in appealing to them so they would write to their respective congressmen. Every student has likewise written to the congressman of his province. The friends of every alumnus and student also extended their help so that it can be said that the Bureau of Forestry, College of Forestry and friends have done a wonderful job in synchronizing their appeal to members of Congress. Even the Secretary of Agriculture and Natural Resources wrote a memorandum to Malacañang urging the President to certify that it is a *must bill*. Governor Chipeco of Laguna has pledged to the faculty to intercede for the forgotten college of the U.P.—the College of Forestry. It is hard to predict the fate of a bill presented before Congress but often times we have heard it said "that more things are wrought by prayer", and while we think that under the circumstances, the best thing to do is to cross our fingers, we also believe that when a college and a bureau pray together, the prayer will be heard.

The Kind of Men.. WHO MAKE GOOD FORESTERS

In addition to good character, industry, initiative, native intelligence and judgment required in most walks of life, the following personal characteristics are particularly important to the forester:

He should have a genuine and enduring liking for out-of-doors work; those whose interests center in city life seldom make successful foresters.

He should be interested in growing things.

He should have a reasonable robustness of body and mind; be able to undergo periods of physical exertion and work pressure without playing out or "blowing up" on the job.

He should be willing to live much of his life in the smaller towns and communities and at times work under lonely conditions. Frequent moves in the early part of one's career are likely. Foresters' wives should recognize this too.

He should have a real liking, interest and tolerance for people and be able to live and work with them at all levels.

He should have a strong sense of responsibility, service and professional interest that goes beyond the pay check. Forestry is a way of life as well as a means of livelihood.

He should be well adjusted and balanced mentally; not overly sensitive and introspective and unable to stand up under reasonable criticism or supervision; not domineering and egotistical and unable to take advice. There needs to be a good balance between leadership, which is important, and ability to work with and under others. A forester should be a good group worker and yet able to work alone effectively.

THE COLLEGE OF FORESTRY FACULTY AND STUDENT BODY'S NOTE OF THANKS

It is but fitting and proper at the closing of the school year 1953-54, that the College of Forestry Faculty and Student Body should express their heartfelt thanks to those who in one way or another have given their help, financial and otherwise, to the College of Forestry's programs and projects.

Among these may be mentioned, the Alumni and friends who generously contributed to the Sound Movie Projector Fund, to Congressmen Gonzalez and Moreno who are jointly sponsoring the H.B. No. 324, which seeks an appropriation of one hundred and eighty-five thousand pesos for the rehabilitation and expansion of the College of Forestry, to Secretary Araneta of the Department of Agriculture and Natural Resources and to Governor Chipeco who have spoken in our behalf to President Magsaysay, to all alumni in the Central Office and in the field, especially Forester Cenabre, who have written and personally spoken to their congressmen to help in the passage of the bill, to the U.P. Conservatory of Music, and to the U.P. Rural High School players, to the L.V.N., and to our advertisers for their cooperation, and above all to Senate President Pro Tempore Briones, who went out of his way, just to be with us on our Moving-Up Day.

Without their help, the success of the College of Forestry activities and the printing of this graduation issue could not have been possible.



LOYALTY

If you work for a man

In heaven's name work for him Speak well of him and stand by the institution he represents —Remember an ounce of loyalty is a pound of cleverness,

If you must growl, condemn and eternally find faults Why, resign your position And when you are on the outside, Damn to your heart's content But as long as you are a part of the institution Don't condemn it If you do the first high wind That comes along will blow you away And probably you'll never know why

-Elbert Hubbard



"When you are weary of the boast of men, Go to a tree my friend; one that has stood Long patient years, within silent wood. Beneath its branches you will find again A thing long lost. Trees are content to be As God created them. No bough that turns Its golden thoughts to autumn ever yearns Beyond a hillside's immortality. Go to a tree in silence. You will find in The soft eloquence of bud and leaf Serenity beyond the voice of grief, And faith above the reach of mankind Man spends his noisy days in search of gain While trees find God in sunlight, soil and rain".



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(Sgd.) JULIAN R. MEIMBAN, Jr.

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