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DEPARTMENT OF AGRICULTURE & NATURAL RESOURCES

DEOGRACIAS V. VILLADOLID

Director of Fisheries

IN THIS ISSUE

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DEOGRACIAS V. VILLADOLID

Another appointment, based on the merit system, of a government official to a top position in the Government had been approved. This is contrary to the mistaken but popular belief that succession by and premium on merit is dead. The elevation of Dr. Deogracias V. Villadolid to a higher position is the result of his unremitting meritorious services to his office, the former Division of Fisheries, which he also helped push and elevate to the Bureau that it is today. Such meritorious services and endeavors are worthy of recognition which the appointive powers did not overlook in appointing him the first Director of the Bureau of Fisheries.

Dr. Villadolid is a man from the ranks, popular in and out of the government circle, particularly among his contemporary men of science. An acknowledged Philippine fishery expert, he is peerless in his own line of chosen activity.

In a fishing town of Nasugbu, Batangas, Director Villadolid was born on March 22, 1896, the year when the Filipinos, awakened by national consciousness took up arms against the Spaniards. He grew up in this town where his early education began. After finishing his elementary grades with honors in 1911, he began his life career as a humble school teacher. Dissatisfied with the work of a character moulder and prompted by his strong desire to better himself, he left this humble, but noble calling to further his studies in the State University where he enrolled in the College of Agriculture in 1913. To him financial difficulty is no hindrance in the pursuit of higher learning and that manual labor is ennobling. With these precepts he managed to support himself in his studies by joining the corps of laborers in the College of Agriculture at Los Baños. His diligence impressed the college authorities who successively promoted him to student assistant in botany, zoology, entomology, and chemistry. During the first World War in 1918, his senior year in college, he joined the Philippine National Guard as sergeant major, but did not see active duty because the war which had been raging furiously in continental Europe ended earlier than was expected on November 11, 1918. He returned then to the College of Agriculture where he graduated Bachelor of Agriculture in 1919. Consequently, he was promoted to graduate assistant in chemistry and later to assistant instructor, two promotions which offered him the opportunity to continue his studies.

In 1922, he graduated with the degree of Bachelor of Science in Agriculture and the following year, Master of Science in Agriculture. He left for the States in 1924 to further his studies on marine zoology at the Pacific Grove Marine Station and as a fellow from the University of the Philippines to study

fisheries at Stanford University. He graduated with the degree of Doctor of Philosophy from the Stanford University in 1927. Immediately after his graduation, he returned to the Philippines.

Upon his arrival, he was appointed instructor in zoology in the College of Agriculture at Los Baños and later was promoted to assistant professor in 1928. In 1934 he was transferred as Technical Assistant to the Fish and Game Administration of the Department of Agriculture and Commerce. Later on, he was again promoted to Aquatic Biologist when the Fish and Game Administration was converted to Division of Fisheries. Again, in 1940 he was promoted to Chief of this division, holding that position until the outbreak of World War II.

After liberation, he resumed his work as Chief of the Fisheries Division. As head of this office, he was instrumental in the establishment of the Philippine Institute of Fisheries Technology. It was he who helped push through Congress the legislative measure creating the Bureau of Fisheries. It was also he who realized the important role that the fishery industries would play in the economic rehabilitation of the country. With overwhelming majority in both houses of the legislature, the measure was approved and the Bureau of Fisheries was organized on July 1, 1947. Upon him fell the unanimous choice as its Director.

Dr. Villadolid represented the Philippines in international conferences on two occasions: As one of the Filipino delegates to the Six Pacific Science Congress held at Berkeley, California, from July 24 to August 12, 1939; and again, as one of the Philippine Government representatives during the FAO Conference of the United Nations held in Baguio from February to March, 1948. In the FAO Conference, he was unanimously elected chairman of its Fisheries Conference.

A member of many scientific societies and fraternities, among which are the National Research Council of the Philippines, American Association for the Advancement of Science, American Fisheries Society, Sigma XI of the Stanford University Chapter, American Society of Ichthyologists and Herpetologist, Dr. Villadolid is also a member of the Board of Nutrition of the Philippines and is the correspondent of the Scientific Institutes, Buitenzorg, Batavia.

Director Villadolid married the former Miss Restituta Salandanan. Out of this happy wedlock four children were born: Lydia, Leland Valentin, Oscar, and Deogracias, Jr.

—*Zoilo B. Asis*

ONE YEAR OF OUR FOOD PRODUCTION CAMPAIGN [1]

By JOSE S. CAMUS

Undersecretary of Agriculture and Commerce
and Assistant General Manager,
National Food Production Campaign

A little over a year ago, on June 17, 1946 to be exact, His Excellency, President Manuel A. Roxas, officially launched the National Food Production Campaign. Our Republic was then about to begin an independent existence under the most trying circumstances. There were many pressing war-born and post-war problems, one of the most serious of which was the food supply shortage. Our country and our people were then still bewildered from the harsh impact of the war; wreckage and devastation were everywhere. There were agrarian troubles and many farmers could not work their farms in peace. Where there was peace, many of our farmers were not in a position to plant as we lost about 44 per cent of our work animals and 30 per cent of our farm tools and equipment. There was a scarcity of seeds for planting purposes. What's more, hopes of receiving substantial imports of rice from abroad were not very reassuring. Hunger threatened many war-torn countries in Europe and Asia and there was a competition to share for what little world's foodstuffs there were available. To make matters worse, there was not only lack of shipping facilities but also a series of maritime strikes in the United States that was paralyzing the limited shipping. Everything considered, the picture was very gloomy, enough to dishearten a young nation struggling in her first year of existence. A major food crisis was imminent unless prompt steps were taken to remedy the situation. Tonight, I am availing myself of this opportunity to make a resumé of what has been accomplished to forestall this food crisis and to tell you of the heart-warming story of our people's response to the food production campaign, which proves once more that we can, if we wish, rise equal to any emergency.

We are indeed fortunate to have at the head of our nation an energetic and far-sighted President who was not only alert in sizing up the food problem but was prompt in taking measures to solve the situation. President Roxas promptly launched the National Food Production Campaign and enjoined the whole country to go seriously in the grim business of warding off an impending famine. He instructed our Department to mobilize all government resources to insure the success of the movement. Provincial governors, city and municipal mayors were designated Deputy Managers in their respective communities as a

[1] Talk delivered over station K Z R H on Saturday evening, June 28, 1947 during the National Food Production Campaign program.

means of further insuring a nation-wide mobilization of men and resources for this important undertaking.

From the point of view of one who has had a modest share in directing the campaign, I can confide to you that I thrill to the warm response shown by our people in this phase of our struggle to ward off widespread famine. It should be a source of both pride and satisfaction for all of us that the public as well as all government entities and many civic-spirited associations co-operated whole-heartedly in this task. All the Department Secretaries joined hands and, with the full facilities of the Government and its instrumentalities, did their utmost to make the campaign successful. Symbolic of the national effort, President Roxas himself took time off to start a poultry project and vegetable gardens at Malacañan. The President has utilized, in spite of the many national problems, part of his very valuable time in the actual raising of foods. School children, Boy Scouts, religious organizations and the general public, all these whole-heartedly undertook food production projects. Gardens sprung up everywhere, about the homes, in the school grounds and even in town plazas. Poultry and piggery units were taken up in increasing numbers and farmers buckled down to work.

The Department of Agriculture and Commerce did everything possible on its part, from giving technical advice to directly distributing seeds for planting. Knowing that many farmers did not have enough seeds, it gathered planting materials together from places where there was a plentiful supply and made these available to other parts of the country where seed scarcity was felt. It imported livestock, swine and chickens. Right now we have three men abroad, one in the United States, one in Australia and another in India, negotiating for the purchase of breeding animals to re-stock our animal population. It mobilized all its field personnel, particularly those of the Bureau of Plant Industry and Animal Industry and the Bureau of Fisheries. Posters and pamphlets giving practical suggestions on gardening, pig raising, poultry raising, control of pests and diseases, etc., were issued to the farmers.

Even before the lapse of one year, results had been encouraging. Large areas were being planted and the supply of corn, vegetables and fruits kept increasing. The prices of foodstuffs, while still high compared with prewar prices, had gone down markedly. I am glad to inform you now that we were able to plant 2,038,907 hectares or 98 per cent of the prewar rice area of 2,080,380 hectares (1940), and 92 per cent of our corn area. The area planted to beans was 122 per cent of the prewar area and that planted to other vegetables, 248 per cent. Our harvest of palay was 52 million cavans (of palay), of which 47.5 million cavans were available for consumption after deducting 4.5 million cavans of seeds, animal feeds and losses. Good work indeed, but viewed from the point of view of our normal

requirements of 62 million cavans a year, we are still short of 14.5 million cavans of palay each year. With the help of imports from food allocations from abroad, we have been able to tide over the serious food shortage. In the case of raising animals for meat and milk, there were established in the course of the campaign 422,960 home projects and 940 commercial projects on chickens; 15,611 home projects and 1,001 commercial projects on duck raising; 264,606 home projects and 401 commercial projects on swine raising all over the country, besides numerous projects on turkey, goat and sheep raising.

All told, while we can with modesty look back to our achievements, and congratulate the public for the good work done so far, I must say that we have still a long way to go to attain our ultimate goal of self-sufficiency. It is easy to see that even if we should be able to bring the production of rice to the prewar level, we still would be short of about eight million cavans of clean rice this year to meet our normal requirements. The glaring fact stands out that we depend on imports for a large part of our basic food—a situation which we should not allow to last for long, considering our potentiality as a rice -producing country.

As to prospects this year, there are still agrarian troubles in some parts of Central Luzon; work animals are not yet available in adequate number, so that we have no assurance that we can plant all our rice lands. It is necessary, therefore, to continue our food production work and for all of us to raise what food we can. We should make this a habit with us. It is a habit that gives dividends in terms of fresh food, wholesome exercise and profitable use of time.

Our Government has not remained idle. It is doing its best to solve once and for all our recurring rice problems. Measures are being taken to increase our over-all rice production through the use of high-yielding varieties, improvement of culture including the use of fertilizers, employment of agricultural machinery, increase of area under cultivation, and improvement of irrigation systems. Recently, a Rice and Corn Production Corporation was organized by the Government to take up directly the growing of rice and corn on a big scale. Good breeds of animals are being imported to improve our local stock. The use of machinery in farming is being encouraged wherever possible. This is the only way of remedying the present shortage of work animals to increase production and to enable one to cultivate a bigger area. We are, therefore, taking definite steps towards self-sufficiency. How fast we can attain this depends on the co-operation of the public.

In closing, I wish to extend to the public and to all those who have in some way or other helped in the campaign, the appreciation of the Government, particularly of the Department of Agriculture and Commerce, for their enthusiastic co-operation. As the work is not yet complete, we are looking forward to your continued co-operation.

THE LEATHER INDUSTRY AND ITS PROSPECTS IN THE PHILIPPINES

By DOMINGO B. GAPUZ [1]
Of the Bureau of Animal Industry

The industrialization program in the Philippines as enunciated by President Roxas, is one step forward in making the Philippines economically independent. The program, if pushed through will doubtless reduce our heavy yearly importation of manufactured articles from abroad. However, the program does not aim to produce in this country all kinds of manufactured commodities now on sale in every market and store, especially those commodities made from inadequate raw materials, and those requiring highly specialized labor and machineries for their production. But such products as leather; canned foods and juices including peanut butter and milk; tankage, fish meal,. bone meal, copra meal and other animal feeds; textiles from cotton and rayon; basic chemicals such as sulfuric acid, hydrochloric acid, alkalies, and ammonia; and other miscellaneous commodities like glue, paper of all kinds, and nails—these products can be made on commercial basis at least to supply our demands. Their production should be pushed through in the industrialization program of the Government.

Before the war the Commonwealth Government passed Act 3953 which called for the appropriation of ₱680,000 to promote new and improve the existing industries. This law was not put into effect in its entirety because of the last World War. As a tool in the present industrialization program of the Government, it is believed that it is not out of order to re-enact it by our lawmakers.

To facilitate the marketing of livestock and to accelerate the industrialization of animal products in the Philippines, Commonwealth Act 340 was passed in 1938. By virtue of this Act, a unit called Utilization Service was created in the Bureau of Animal Industry. Among other things the law provides for the establishment, equipment, maintenance and operation of modern national slaughterhouses where animals owned either by the Government or private parties may be slaughtered; refrigeration plants to chill and store carcasses of animals slaughtered; tanneries to tan the hides and skins; and rendering plants to process condemned carcasses and animal waste products into useful commodities. This law was in operation

[1] Dr. Domingo B. Gapuz was sent to the United States as a government pensionado to specialize in leather technology and industrial utilization of animal by-products. He returned to the Philippines after staying abroad for six years. Before he was recalled by the Government, he was an Assistant Professor of Applied Science in Tanning Research in the University of Cincinnati, Ohio, U. S. A.

even before the war. Today, for lack of funds it is not being operated.

This article limits the subject solely to the leather industry and its prospects in the country and is intended to inform the industrialists and capitalists who may be interested in the exploitation of this industry.

The leather industry is not a new enterprise in this country. The reason the industry is being neglected and undeveloped is that the method employed to produce local leather is not up-to-date, resulting in limited production.

Again despite the lack of capital, local tanners have, nevertheless, made some improvements in their respective tanneries, but even with these improvements they are still far behind in producing leather the way it is being done abroad. Knowledge gained after extensive observations in well-known tanneries in the United States points to the fact that this industry can be exploited in this country provided, however, that the modern methods in the manufacture of leather are followed.

In developing an industry one should consider: availability of abundant supply of raw materials; steady and ready markets at home and abroad; and skilled labor and necessary machineries. Of course, most important of all is the necessary capital. It is, moreover, suggested that the government give priority and facilitate capitalization for the development of this industry.

A. RAW MATERIALS

Hides and skins.—Skins of large animals like carabaos, cattle and horses are called hides. Those of small animals: goats, sheep, dogs, pigs, calves, deer—are called skins.

Hides and skins are the most expensive items in the production of leather. In the Philippines sources of them are carabaos, cattle, horses, goat and sheep, not to mention the game animals slaughtered for human consumption. Statistics show that, the average number of animals slaughtered for food, every year for ten years, from 1928 to 1938, was 73,807 head of carabaos; 139,650 head of cattle; 5,680 head of horses; 59,582 head of goats and 18,314 head of sheep. During the same period the average annual population of these animals was 2,163,790; 1,342,925; 366,596; 472,489; and 132,860 head respectively.

It will create a false impression if we figure the number of hides and skins for tanning purposes on those statistical figures just cited, because of the decimated herds due to wanton slaughter of animals during the Japanese occupation. Yet it is not wrong to base the estimate on those figures because, with the aggressive program of the Government through the Bureau of Animal Industry, to rehabilitate our present depleted livestock, sooner or later, those figures may be reached or may even be exceeded. The Government for that matter has been encouraging the importation of beef on the hoof for slaughter in this country. If hides of these animals could be processed into leather, they should not be re-exported. Hides of those

imported animals including those of native beef animals slaughtered currently will be sufficient to supply modern tanneries with raw materials and thereby meet our present needs for leather.

The present wasteful practice of burning the skin with the carcass when goats are prepared for food should be discouraged because the leather from goatskins is of good quality and well suited for high quality shoes. Besides, with the establishment of modern tanneries these goatskins will be bought at reasonable prices thereby assuring the farmers extra monetary returns.

Carabao hide, because of its peculiar structure, is best tanned for heavy belting leather, upholstery, bags of all kinds, suit cases and harness. They can, moreover, be processed into first class sole leather.

Carabao hides, in the United States, are used for mechanical rawhides and pickers for power looms.

Heavy steer and cow hides because of the peculiar arrangement of their structures are tanned principally for sole leather. Thinner ones are used in the manufacture of upper leather, or the leather used for the top of shoes and boots. Observations made in this country seem to indicate that most of our cattle hides are best suited for making light leather. For this reason a side upper tannery or tanneries in the country may be profitably managed to produce leather to meet the demand for upper leather, upholstery, bags, and suit cases.

The side leather tanneries can also handle the horse hides which are tanned principally for boots and lining purposes.

The local tanners in this country make principally sole leather. However, for certain reasons they seldom use carabao hides for this purpose. Consequently, they import heavy steer hides to supplement the native steer hide supply. From 1928 to 1937, statistics show that the average annual importation of hides was 23,064 kilos. In 1939 imported hides and skins were valued at ₱21,635; in 1940, at ₱4,406. From 1933 to 1940, the importation of hides and skins showed a gradual decrease, indicating either that there was an improvement in the local supply of heavy steer hides or the local tanners decreased the volume of their production.

A smaller portion of our cattle hides are suitable for making sole leather. These hides and those from carabaos can supply the raw materials needed by a heavy leather tannery or tanneries designed to produce our needs for sole, in-sole, belting and harness leather.

A goatskin tannery may be profitably established to handle our goatskins which are good for upper leather. From this material the famous Morocco brand is produced. Also made out of these skins are wallets, handbags of all kinds, and garment leathers.

Not only goatskin can this tannery handle, but also sheepskin and all skins from game animals whose skins are tanned primarily for lining purposes and for making leather garments.

Salt.—No salt deposits are well-known in the country except that one in Nueva Vizcaya which is still unexplored and undeveloped. Salt, nevertheless, in large quantities in many parts of the country, is made by solar evaporation. Statistics show that during the last ten years before the war a yearly production of about 50,000 tons of salt was registered.

Lime.—Limestone has been reported to be one of the most abundant deposits in the country. By burning limestone and calcining shell lime which is plentiful and a raw material for the manufacture of leather, lime can be produced.

Acid and alkalies.—Two other important materials needed in the manufacture of leather but are not produced in this country yet are acids (sulfuric, hydrochloric, or any other mineral acids) and alkalies (sodium carbonate or any other mineral alkalies). However, our needs for these chemicals for tanning purposes are low. They can be imported without hurting the industry, until such time as plants for their commercial production are established.

Chrome tan.—The Bureau of Mines estimates that our chromite ore reserve is so large that there is no danger of exhausting it for many years. In Zambales alone, there is reported ore reserve of over 8,000,000 tons. At present, however, there is no local manufacture of bichromite from chromite. But a commercial plant for roasting chromite may be feasible since, sodium chromate is used in the electrodeposition of chromium for plating iron and other metallic wares.

The need for chrome for tanning purposes, however, is so low that in the meantime this can be imported without affecting adversely the industry. A plant for roasting about 40 tons of chromite a year is big enough to supply chrome tan with which to process the hides and skins of animals equal in number to those slaughtered annually before the war.

Vegetable tans.—Mangrove or bakawan (Tag.), *Rhizophora conjugata* and kamachili (Tag.), *Pithecolobium dulce* are the two most popular sources of vegetable tannins now used by local tanners. These plants are extensively found in the country. They can also be propagated in large number without any difficulty. According to the various sources including reports from the Bureau of Forestry, a daily output of from three to five tons of cutch, the tannin extract from the barks of bakawan, can be profitably operated without exhausting our mangrove supply. A factory producing from three to five tons of cutch a day, will be big enough to produce our needs for this vegetable tannin extract, if we process into leather hides and skins as many as those from animals killed for food annually before the war.

Many other sources of vegetable tannins are found extensively in the country although they are not commercially used as yet. Among them are kalumpit (Tag.), (*Terminalia edulis* Blco.), bitaog (Ilocano) (*Calophyllum inophyllum*); kariskis

(Ilocano) [*Albizzia lebbeckoides* (D. C.) Benth.]; buñga (Tag.) (*Areca catechu* L.); pagatpat (Tag.) (*Sonneratia pagatpat*); tabigue (Tag.) (*Xylocarpus obovatos*); tangal (Tag.) (*Ceriops tangal*); and hagalay (Tag.) (*Bruguiera parviflora*).

Other miscellaneous materials.—There are many other materials needed in the manufacture of leather. Among them are bates, dyes, oils, finishes of every kind and solvents. Some of them are available locally; others may be substituted by local materials; and still others may be imported due to the lack of local skill in preparing them. However, they do not figure as important items in producing leather and they can be imported without detriment to the leather industry.

B. MARKET

Home.—During the period from 1928 to 1938 the importation of leather and leather goods amounted to an annual average of 653,810 kilos with a total value of ₱2,943,963. In 1945, the importation amounted to ₱1,854,588, and jumped to ₱10,839,503 in 1946. Of this importation, sole and harness leathers constituted in 1945 an amount of 66,890 kilos valued at ₱82,152; and in 1946, 374,002 kilos valued at ₱579,702. In 1945, upper leather, constituted 35,867 kilos, valued at ₱160,131; in 1946, 228,916 kilos valued at ₱1,754,979. Gleaned from these figures, one can see that in 1946 alone, the total importation of sole, harness, and upper leathers which amounted to 602,918 kilos, valued at ₱2,334,681. These kinds of leathers are singled out here because they are the ones that are mostly needed in this country. Besides, they can be made locally, too. The figures above clearly show that there is a steady and ready market for leather made in this country, following the modern methods of production.

Earlier in this article, the number of animals slaughtered for food annually before the war was mentioned. If those hides and skins from the slaughtered animals were processed here into leather, and assuming that, conservatively the leather obtained from them weighed 15 kilos per carabao hide, 7.5 kilos per cattle hide, 2 kilos per horse hide, 0.2 kilo per goatskin, and 0.1 kilo per sheepskin, the total weight of leather obtained, therefore, from them would be 2,229,587 kilos or 3.7 times the weight of leather imported in 1946. Thus, the surplus could have been exported to neighboring countries in the Orient instead of exporting the hides and skins.

C. LABOR

It is to be admitted that we lack skilled labor for the production of leather in the Philippines. However, given the opportunity the Filipinos can easily be taught the technique and skill necessary in producing all kinds of leather. Vocational schools either run by the government or private institution or both can undertake the teaching and training of those interested in the work.

SUMMARY

The leather industry in the Philippines has bright prospects for almost all the raw materials needed in its production are available. Even those that are not available may be imported without hurting the industry. What we lack at present are skilled labor and technique for this purpose. But since the vocational schools will handle the proper training, this problem will be solved in a short time.

Leather made in this country, when produced by the modern and scientific methods, has a ready and steady market at home. The surplus can be exported to neighboring countries. If this industry should be developed, this country would be saving millions of pesos worth of leather and leather goods from abroad. Furthermore, the livestock industry will benefit, too. The farmers also will be assured of extra monetary returns from their herds and the labor and technicians producing the leather goods, too.

EPIGRAM

If you steal from one person, it is plagiarism; if you steal from three persons, it is research.

Fortunate is the man who make the "impossible" possible.

—STANSIFER

The greater the obstacle, the more glory in overcoming.

—MOLIERE

NEW FOOD FOR HUNGRY MILLIONS

Food yeast, a miracle of nature, may free the world from the threat of starvation

By MADELYN WOOD

The amazed scientist peered at the figures again and rubbed his eyes. Once more he thumbed through the batch of photographs attached to the paper on which the figures were written. Incredible, yet true! Thoughtfully, he reached into a jar and pinched the brownish powder between thumb and forefinger. There was magic in that powder—sheer magic that could change the history of the world!

The well-known scientist of the University of Arkansas, Dr. Barnett Sure, sitting in his laboratory deep in the Ozarks, could visualize the picture. Out beyond the green mountains was a starving world, and here, in this humbly miraculous powder, lay the means of feeding it. It was a means that required no vast acreage for agricultural production, no expensive factories, no special knowledge or scientific skill.

This substance was produced by a miracle of natural chemistry in which nature herself does most of the work. Almost overnight, the powder could revolutionize the food situation of the world and help provide adequate diets for millions who were slowly starving.

The substance which so excited the eager scientist bears a somewhat familiar name. It is called food yeast. Not just yeast, but food yeast. It is miraculous because it contains a high percentage of protein, that necessity for growth and health which modern nutritionists have found to be so dreadfully lacking in most of the world's diet.

In the 1920s we went through an era in which calories were popularized as the basis of diet. In the '30s the emphasis was on vitamins. Now in the '40s, nutritionists have turned to proteins, for the world is desperately protein-hungry. Even the diet of many Americans does not give the necessary minimum.

Nutritionists know that the amount must be at least 70 grams a day. Yet there are two groups of people who must have far more than 70 grams. Pregnant women need at least 85 grams daily, for failure to receive this amount can result in the birth of a child shorter than average, light in weight and dangerously subject to disease. The second group comprises growing children, who need from 40 to 100 grams of protein daily, depending on the size and age of the child.

Thus, even if we write off the plight of the world's adults who lack a protein-rich diet, we are condemning younger

generations to disease-ridden lives simply because they do not get enough of a substance that could be supplied readily and inexpensively by that magic powder, food yeast.

Food yeast, however, is not eaten in powder form. It is put into food that already exists, with little effect on taste but with startling effects on nutritional value. Recently a group of scientists sat down to a meal which looked orthodox: a cream soup, chicken croquettes, and a pudding. Because every dish contained food yeast, the scientists were told they were getting as much protein as that contained in two large steaks.

The scientists were human enough to admit that from the standpoint of sheer satisfaction, they'd prefer the steak, but from the nutritional standpoint they recognized that the meal represented a startling advance in meeting the world's most baffling nutritional problem.

Oddly enough, the making of food yeast is as old as man's brewing of beer, an art discovered 6,000 years ago. Brewer's yeast, the most common form of food yeast, has been thrown away through the centuries. Then, in World War I, the scientists in hard-pressed Germany started to look for food substitutes. One of their jobs was to find a substitute for meat, and they quickly discovered it in yeast.

They created a kind called "mineral yeast," and it was produced in some quantity. Then Germany's sugar supply was cut off, and since sugar is necessary to yeast making, they had to cease production. There the experiments seem to have halted, to be resumed briefly in the 1920s and '30s by researchers in America and Europe. But not much progress was made until the start of World War II, when England, facing the possibility of starvation, was forced to act.

Researchers hastened to delve into the record of earlier experiments. Then Dr. A. C. Thaysen and his co-worker, Murile Morris, started on a project which may well become one of the classic milestones in the history of man's long struggle to find the right foods.

There are many kinds of yeast, all microscopic organisms abounding in the air. Thaysen studied the existing yeasts and shook his head. "What we need," he announced, "is a new kind—one that will grow faster than any now known."

Finally, after examining hundreds of types, Thaysen found the one he wanted, a strain known as *Torulopsis utilis*. Now Thaysen and his faithful assistants set to work in earnest. Day and night, seven days a week, they toiled in the government's laboratories near London. Always they were driven by the knowledge that the beleaguered British Isles desperately needed food, and that protein loomed large in that need.

At last, in 1943, they announced a yeast that could perform miracles of multiplication. Thaysen directed the building of a factory and showed how yeast could be made in it. It is an astonishingly simple process.

Into a vat containing 7,000 gallons of ordinary water go approximately 125 pounds of yeast culture (the equivalent of seeds), a ton and a half of molasses and some ammonia. The hungry, growing yeast feeds on the sugar in the molasses and converts the ammonia into nutritious proteins.

In 12 hours the strange mixture emerges as a ton of creamy paste, which is dried into flakes or powder, or compressed into tablets. Once dried, it will keep indefinitely, apparently never losing the concentrated food value packed into it.

In just 24 hours a single small vat can produce as much protein value as would be found in four two-year-old steers! Kept working year round, such vat can produce more proteins than would be obtained from 1,000 acres of protein-containing vegetables! No wonder scientists are beginning to say that yeast can solve the 20th century's food problems.

Yet all over the world, quantities are actually thrown away. Brewer's yeast has long been an unwanted by-product of breweries. But as it is better and cannot be stomached by human beings, processes have been developed to create a "debittered" yeast, which has a nut-like flavor similar to that in food yeasts directly produced.

There is nothing theoretical about what food yeast can do, for the war record is there to be read. Before the war ended, we were shipping 30,000,000 yeast tablets a month under Lend-Lease. Our own Army used 1,000,000 pounds of dry yeast a month, and it was part of the field rations of the German and Russian armies. Civilians had their chance to try it in experiments like those carried out by the School of Nutrition at Cornell University.

Here yeast was included in cookies, cakes, doughnuts, meats, bread and soup. Hundreds of people were invited to eat the foods and then were asked about taste. The vast majority professed they could not detect the yeast at all, a few thought that it added a spicy flavor, still fewer objected to the taste.

At a big industrial cafeteria, 1,500 daily diners were the unwitting subjects of an experiment. Here yeast was added to all foods during an experimental period, with apparently no one noticing any difference in taste. In experiments at the University of Arkansas, it has been found that if diners are not informed in advance that yeast has been added, they are unaware of difference.

What yeast does to the nutritional value of food is little short of astonishing. In the cafeteria experiment, just three ounces added to a gallon of finished food produced amazing increases in food values. Thiamin was increased nine times in Creole soup, six times in chop suey, twelve times in veal stew and fourteen times in macaroni. Riboflavin content showed comparable increases.

In the South, the Red Cross has already distributed huge quantities of yeast as a means of combating pellagra, disease

of malnutrition. Agriculture has also turned eagerly to yeast, with impressive results. Fed to cattle, it is said to increase their weight and general stamina; chicken feeds containing yeast have been found to increase egg production by as much as 25 per cent, while the eggs contain larger amounts of the B vitamins.

During World War II the Nazis produced 200,000,000 pounds of cultured yeast annually to help supply the German people with the badly needed proteins to carry on their war for world domination.

In medicine, too, yeast has made advances. Dr. William DeKleine of Michigan reports that it may be valuable in treating many diseases, such as diabetes and anemia, in which nutrition is an important factor. He has also carried out experiments indicating that limited quantities of food yeast in the regular diet had the effect of reducing blood pressure.

Other dramatic experiments have been conducted by Dr. Sure at the University of Arkansas. Dr. Sure, who is credited as one of the discoverers of Vitamin E, set out to see what food yeast could really do. As his subjects he used white rats, whose response to nutrition is virtually the same as that of human beings. What happened would seem almost unbelievable if it were not for the records.

For nine weeks, two rats born on the same day were fed an identical ration, with the exception that one per cent of one rat's ration was removed and dried yeast substituted. After nine weeks the rat which did not get yeast weighed 69 grams, the other weighed 127 grams.

If this happened when only one per cent was used, what would happen if the yeast was increased? Dr. Sure found out by experiments with other rats. When the ratio was increased to five per cent, the rat that was fed yeast showed a 300 per cent increase in weight.

Now all this occurred when yeast was added to a basic cereal diet. And right there is the key to the world-shaking significance of food yeast. For the fact is that the food supply of most nations is made up of cereals. More than half the world derives over half its calories from cereals, the very foods that are most lacking in proteins and the very foods to which yeast can be added with the most startling results!

Thus yeast takes its place in the world food situation, not only in the present emergency stage but in the long-run picture. Look at India, a nation of more than 300,000,000. While the U. S. has 3.3 acres per capita for raising crops, India has only 0.78. No matter how her farms were mechanized, India could not possibly grow enough food or raise enough meat animals to provide a proper national diet. There is a further complicating factor—the religious belief which bars meat from the diet of a majority of these 300,000,000 people. A nutritionist can only shudder when he thinks of India. Hence, the situation for yeast is ideal there.

India has the largest sugar-cane industry in Asia, an industry that produces molasses, a great deal of which is now wasted. There is further waste because the industry operates only for about a third of the year. Yeast production could make this laggard industry a full-time producer, which in itself would contribute to economic prosperity. Meanwhile, by adding yeast to the diet, the present-day native of India, undernourished and subject to disease, could become a robust, vigorous individual.

If yeast were used for world-wide consumption, could we produce enough of it? Our brewing industry could help greatly; in a normal year breweries produce a surplus of 30,000,000 pounds. Perhaps 10 per cent of this is used in the pharmaceutical trade. Perhaps one-third is fed to livestock. More than half is thrown away.

Here is a start toward world yeast needs. The remainder could easily be produced in unlimited quantities in nearly any country, but particularly in those where sugar cane is readily available. The richest soil, producing under the most ideal conditions, cannot yield a protein return like that of the yeast vat.

In fact, there is no reason why you should not enjoy the added benefits of yeast in your own home cooking. De-bittered brewer's yeast is sold at most drugstores. Modified recipes for its use in muffins, cakes, cookies, meats, soups and gravies may be obtained by writing to the makers. And the cost is low. Present prices range from 40 to 50 cents a pound.

Even now, the possibilities of yeast have barely been explored. Many experts believe it will be the basis of synthetic foods of the future. Already success has been achieved in producing yeast of varied tastes, and scientists now predict that it will be possible to grow yeast with any flavor from beef stew to strawberry. But meanwhile, whether or not you sit down to a "yeast steak," it is pleasant to know that the magic of food yeast can bring health and vigor to the world's hungry millions.

—CORONET, January 1947

REPUBLIC OF THE PHILIPPINES

DEPARTMENT OF AGRICULTURE AND COMMERCE

OFFICE OF THE SECRETARY

MANILA

IN THE MATTER OF: S. A. No. 16710, DOLORES ANKIS, *Applicant and Appellant*	(D.A.C. CASE No. 74) Claim to a parcel of land in Guianga, Davao

ORDER

In an order dated September 20, 1935, the Director of Lands with the approval of this Department, rejected Sales Application No. 16710 of Dolores Ankis, holding as follows:

> As upon investigation it was found that the tract of land covered by Sales Application No. 16710 of Dolores Ankis is not occupied by the applicant herself but by a Japanese named Tamabuoto who is deriving benefits therefrom, in open violation of the law and in contravention of the following material statements in the application made under oath by the applicant:
>
> > In making this application for purchase, I am not acting as agent of any person, corporation, organization, or association; and I am not in collusion with any person, corporation, organization or association to give them the benefits of the land entered, or any part thereof, or the timber thereon, or the minerals therein, and I am not entering said land for the purpose of speculation, but in good faith. I will not, directly or indirectly, make any agreement or contract, in any way or manner, with any person or persons, corporation, or association whatsoever, by which any right or rights which I may acquire from the Government will or may inure in whole or in part to the benefit of any person, persons, corporation, or association of persons. I will not sell, assign, transfer or in any manner encumber the land or the right or rights that I may acquire, without the approval of the Secretary of Agriculture and Natural Resources first had and obtained as provided in section 29 of the Public Land Act No. 2874.
> > (*See* section 89, Act 2874)
>
> the said application is hereby rejected, and all improvements existing thereon are hereby forfeited in favor of the Government.

Within the reglementary period Dolores Ankis filed a motion for the reconsideration of the said order of the Director of Lands. No action had been taken on the said motion for reconsideration until September 12, 1946, when this Department directed the Special Investigation Party to conduct an investigation of this case, which is one of the dummy cases.

In compliance with the said order of this Department, the Special Investigation Party conducted the necessary investigation and ocular inspection of the premises and it was found thereat that applicant Dolores Ankis is already dead; that her only daughter Dominga Uy who is married to a Japanese is now in Japan; and that the land in question is occupied by squatters.

In view of the said report of the Special Investigation Party and there being no reason or justification which would warrant the reversal or modification of the order of the Director of Lands on September 20, 1935, the motion for reconsideration filed by Dolores Ankis should be, as hereby it is, denied; and the Director of Lands, authorized to sell without necessary delay the land covered thereby at public auction to the highest bidder. Pending the sale at public auction of the said land, a temporary administrator thereof should be appointed by the Director of Lands.

So ordered.

Manila, Philippines, January 18, 1947.

MARIANO GARCHITORENA
Secretary of Agriculture and Commerce

SOIL CONSERVATION AND PHILIPPINE AGRICULTURE [1]

By MARCOS M. ALICANTE
Chief, Division of Soil Survey

Since agriculture is the basic industry which constitutes the backbone of the economic life of the people and upon which other industries of the Philippines depend, it is imperative for the Government to direct its program of reconstruction along scientific lines. Such a step is in accordance with the policy enunciated by President Roxas in his inaugural address delivered on May 28, 1946, emphasizing crop production and industrialization as the major program of the Government. To implement this policy of the President, the Division of Soil Survey, of the Department of Agriculture and Natural Resources, which was created in 1939 and has since liberation emphasized soil conservation work, is actively promoting the protection of our soils from accelerated erosion and their use according to capabilities, the attainment of which will insure stability for our rural communities; secure adequate income for all the people; bring about the steady production of foodstuffs; and supply sufficient raw materials for the operation of other industries.

The most important point to consider in the conservation of Philippine soils is to operate the land with a view to saving it from soil erosion, besides building up and maintaining its fertility. The results of the soil surveys heretofore undertaken by the Division of Soil Survey show that agricultural lands in the Philippines are declining in productivity owing to soil misuse and the adoption of improper methods of farm operation. If this system of farming is continued, floods will be more frequent, water shortage will be more pronounced, and our lands will in due time be so poor that to work them would be unprofitable. The exhaustion of the soil presupposes the ultimate exhaustion of the people. Poor lands can only mean poor farmers, poor communities, and a poor nation.

Rich farming communities do not thrive on poor lands. Most of our upland soils have been so abused, unknowingly or carelessly, that they can no longer support a paying crop, because of which the income of the farmer in these areas is not enough to sustain a decent living. Let us take the case of the "rice lands" in the Buenavista Estate, Bulacan Province, where the average production of palay is only 15 cavans per hectare. To put it bluntly, under the present system of farming these lands have ceased to be paying and are not submarginal to rice. After the rice season, which lasts for about five months, the land is left idle—and so also is the farmer. The immediate net result

[1] Speech delivered over Station KZFM during the Department of Agriculture and Natural Resources Half-Hour with the People—October 12, 1947.

of this kind of farming is poverty. Statistics show that the prewar income of the Filipino peasantry is hardly ₱100 annually.

The agrarian trouble in Central Luzon may be traced down to deteriorated farming. The once bloody dispute in the Buenavista Estate is a case in point. The strained relationship between the landlords and the tenants seems to be the cause of the trouble, but the real cause is the farmer's failure to maintain a decent living due to soil erosion and soil fertility depletion.

The Buenavista Estate is the first experiment of the Government calculated to solve the agrarian unrest. This problem can not be solved by merely making the tenants own the lands they cultivate. As most of the cultivated lands of the Buenavista Estate are now submarginal to rice and other staple crops, the natural fertility must be restored in order to give the tenants thereof a decent means of livelihood. In view thereof, the Division of Soil Survey has established in this Estate the first soil conservation farm in the Philippines, its main object being to show to the people of Buenavista in particular and to the farmers of the country in general how to restore the fertility of depleted soils and how to work such soils according to land-use capabilities.

The prosperity and stability of our young Republic depends upon the sound development of agriculture on a permanent basis. But permanent agriculture can nowhere be established to the exclusion of soil conservation practices, because wherever lands are cultivated soil erosion sets in, and unless conservation measures are resorted to, such lands will continue to "bleed" and finally "die" just as a man who is mortally wounded and left alone, dies of hemorrhage or loss of blood. It is therefore high time that we stop the "bleeding" of our cultivated lands by farming in a soil conservation way. By so doing, sub-marginal lands will be made once more productive; crop yields per unit area will be increased; floods will be minimized or controlled; water will be conserved, thus forestalling water shortage and drought; and our lands will be kept productive for the use of future generations. In short, as individuals we shall be happy and prosperous; as a nation, we shall live in peace and prosperity.

THE PRACTICAL APPLICATION OF THE PHILIPPINE MINING LAWS [1]

By BENJAMIN GOZON
Chief Attorney, Bureau of Mines

During the Spanish regime, the first mining law applied to the Philippines was the Decree of Superior Civil Government of January 29, 1846, followed by the Spanish Law of July 7, 1859, and later by the Royal Decree of May 14, 1867, which was the one in force on the date of the cession of the Philippines to the United States by Spain under the Treaty of Paris of 1899. During the American occupation, these laws were abrogated and the Philippine Bill of July 1, 1902 was applied to the Philippines. This organic law, with its amendments, and Act No. 624 of the Philippine Commission, were the laws in force in the Philippines up to November 15, 1935, when the Commonwealth Government was inaugurated.

On November 7, 1936, Commonwealth Act No. 137, otherwise known as the Mining Act, was approved by the National Assembly. This Law, as amended, the Coal Land Act, approved on May 14, 1917, the Petroleum Act, approved on June 1, 1923, and the Sand and Gravel Act, approved on March 16, 1923, as amended, and the rules and regulations promulgated thereunder, constitute the mining laws in force in the Philippines at present.

Under the Act of Congress of July 1, 1902, the free-hold system of disposition of mineral lands was adopted in the Philippines. Under this system, a mining claim validly located and registered by a locator becomes his property in the highest sense of the term. It has the effect of a grant by the Philippine Government of the right of present and exclusive possession with the right to the exclusive enjoyment of all the surface ground as well as of all the minerals that may be found within the mining claim. The holders of such mining claims, therefore, may extract and dispose of minerals for commercial purposes even though patent therefor has not yet been approved.

Our present mining laws deviated from this school of thought and, following the nationalistic policy embodied in the Philippine Constitution, inaugurated what is known as the lease-hold system. Under this, the Government retains the ownership of mining claims and grants to bona-fide locators the right to lease them and to extract and dispose of minerals therefrom, subject only to compliance with the provisions of law, for a term of 25 years, renewable under such terms and conditions as may be provided by law for another period not exceeding 25 years. Its provisions were the result of more than 34 years

[1] Speech delivered over Station KZFM during the Department of Agriculture and Natural Resources Half-Hour with the People—November 16, 1947.

of study, experience, and experiment of the American system as it was applied to Philippine conditions. Its provisions are more liberal than our former mining laws. For example, it authorizes a locator to locate three mining claims, instead of only one under the old mining law, on the same vein or placer ground, and opens not only public, but also private, lands to mining locations and lease, subject only to the payment of just compensation and rentals in the latter case.

Conflicts and disputes arising out of mining locations are decided by the Director of Mines. To get first hand information of the nature of the conflict on the ground, ocular investigations are made. In addition, formal hearings are conducted in the Central and District Offices of the Bureau of Mines. This is essentially a quasi-judicial function, inasmuch as the decision of the Director of Mines and/or the Secretary of Agriculture and Natural Resources shall become final and binding upon the parties concerned if any one of the interested parties should fail to bring it to court of competent jurisdiction within 90 days after receipt of the notice of such decision.

After a mining claim has been located and registered in the office of the mining recorder concerned, application therefor may be filed, after which, the lease survey may be executed and upon the approval of the survey plan, the publication of notices of such application shall follow. If, during the period of such publication, no adverse claim shall have been filed, it shall be conclusively presumed that no such adverse claim exists and thereafter no objection from third parties to the granting of the lease shall be heard and the lease shall within 45 days be granted to the applicant, or to his successors or assigns. If, however, an adverse claim is filed at any time during the period of publication, all proceedings, except the publication of notice of application for lease, shall be stayed until the controversy shall have been settled or decided by a court of competent jurisdiction, or the adverse claim waived. Only after such judgment shall have been rendered may the party whose right to a lease shall have been established may the lease be forthwith granted thereon. In order to help locators or holders of mining claims to extract minerals pending the approval of their lease applications, a temporary permit may be secured provided their applications shall appear to be *prima-facie* well founded and subject only to the filing of a bond to the satisfaction of the Director of Mines and to the payment of royalties provided therefor. Any quantity of minerals may be extracted and disposed of for commercial purposes provided it is properly applied for and approved by the Director of Mines.

All the present mining laws are in force except the Petroleum Act, (Act No. 2932) which has been suspended by Commonwealth Act No. 433, and later by Executive Order No. 11–W, from May 31, 1939, to May 31, 1949.

Pursuant, however, to Joint Resolution No. 5 of the Philippine Congress, the Philippine Oil Commission was created by

the President to study the problems relating to the exploration, development, and exploitation of the oil resources of the Philippines and to recommend to him such action as may be necessary to effectuate such purposes. The Philippine Oil Commission is accepting suggestions and/or proposals relating thereto up to January 15, 1948, so that it may take into consideration those suggestions and proposals before it submits its recommendation to His Excellency, the President.

The Bureau of Mines has consistently adopted the policy of interpreting, applying, and executing the Philippine Mining Laws liberally so as to help, encourage, promote and rehabilitate the mining industry in the Philippines. Forms are sacrificed to substance and red tape is avoided to expedite the granting of mining leases and permits. Our mining laws provide suitable safeguards and guarantees for American capital to make investments in mining in the Philippines. Comparatively speaking, the labor situation in the Islands is fast approaching normal conditions and labor costs have been lowered down by almost 40 per cent since the early liberation days. Labor strikes in the past were merely sporadic and local and due to the intervention of the Government, had been solved to the satisfaction of both labor and capital. As a consequence, labor strikes have greatly minimized lately. Mining opportunities here are vast and open; our mineral resources are practically untapped considering that of the total area of 29,740,922 hectares of the Philippines, only 5.74 per cent are located and registered, and barely .01 per cent is actually developed. Hand in hand with this is the pending unfilled orders for strategic and industrial minerals. Representatives of big American mining concerns and metal producers have been sending their representatives to the Philippines to survey our mineral deposits, specially the base minerals, and contacting parties for the acquisition of mining claims. As a consequence, it cannot be denied that there is now in the Philippines a baby boom for manganese, chromite, copper and coal, and the same thing may be said for gold were it not for the pegging of its price to $35 an ounce. It is up to us, Filipinos, and to our brother Americans, to take advantage of this opportunity.

HOW TO INCREASE CORN YIELD

By FABIAN O. SOLPICO

Assistant Agronomist
Plant Breeding and Introduction Section
Bureau of Plant Industry

Most of us are not aware of the fact that the average yield of corn in the Philippines for the last ten years before the war was only about twelve cavans per hectare. This low average production per unit area can be raised through the adoption of several measures, namely: (1) improved cultural methods, (2) fertilization and green manuring, (3) planting selected or F_1 hybrid seeds, and (4) control of pests and diseases.

Improved cultural methods.—The field should be thoroughly prepared before planting. At least there should be three plowings, cutting from 6 to 9 inches through the ground, each plowing followed by harrowing to bring the soil in good tilth. The drawback of most farmers is the late preparation of the land. To catch up with the planting time, they plow and harrow the land once and then plant without bearing in mind the poor yield that would be obtained.

The right time of planting should be closely observed and followed, dropping 3 or 4 seeds per hill, at a distance of one meter between rows and 60 cm. between hills, thinning to 2 plants per hill leaving only the most vigorous ones. In places where there are distinct dry and wet seasons, planting commences after the first heavy rain on April, May and early part of June for the wet season culture, and October, November and the first week of December for the dry season crop. While in places where rainfall is evenly distributed throughout the year, planting can be done any time of the year. Later plantings as mentioned above, will expose the plants to the attack of pests and diseases and thus reduce the yield.

Cultivation should be made as frequently as necessary to kill the weeds, improve the physical condition of the soil, conserve moisture and aerate the soil. The last or final cultivation should be hilling-up when the plants are about two feet from the ground. Late cultivation is destructive to the root system of the plants.

Crop rotation should be practiced by the farmers. In some places, corn is planted after tobacco or rice, while in other places corn is planted continuously. This is not a good practice. The crops recommended are mungo, cowpeas, beans and other leguminous crops.

Fertilization and green manuring.—Corn takes away from the soil a great amount of available plant nutrients during its entire growing period. Continuous cropping will naturally impoverish the soil of the much needed elements for a successful

and greater corn yield. To replenish what has been removed from the soil, the application of nitrogenous fertilizers in the form of ammonium sulfate, nitrate of soda, ammophos, double superphosphate and other forms, should be made.

The amount of fertilizer required for corn per hectare to obtain an increase of 60 per cent or more is 18 kilos of nitrogen, 36 of phosphoric acid, and 36 of potash. A more liberal amount of nitrogen may be applied. In the United States, a proportionate return is obtained up to 120 kilos of nitrogen per hectare. Hill application in the amount of about a tablespoonful is preferable to broadcast to give the plant the benefit of utilizing most of the nutrients added to the soil.

Green manuring besides improving physical condition of the soil maintains fertility. Leguminous plants as cowpeas, tapilan, mungo, etc., should be planted and plowed under during the flowering stage. The crop should not be allowed to mature.

Planting selected or F_1 hybrid seeds.—The farmers should plant only selected or improved seeds. However, hybrid seeds are preferable. But on account of the fact that the process of inbreeding and selection preparatory to the production of F_1 hybrid seeds, is in progress the farmers should be encouraged at present to produce crossbred seeds, through the guidance of the Bureau of Plant Industry personnel, as crossing different regional varieties or strains gives an increase yield of 70 to 75 per cent. Or they must select their seeds in the field before ears and, if possible, plants producing two normal ears. The seed ears must not be too high from the stalks and preferably hanging downward at maturity. They must be free from diseases and pests, with husks covering fully the tip of the ear. The farmers should stop the practice of selling good-sized ears as "green corn", in order to have a good source of planting materials.

Control of pests and diseases.—Like any other field crops, corn is subject to the attack of pests and diseases. The young corn plant is particularly attacked by the downy mildew which can be remedied by removing the affected plants or planting resistant varieties or strains.

The weevil is the most serious pest attacking stored grains. To minimize loss due to this pest, dry the corn grains very thoroughly until the moisture content of the grain is about 13 per cent. Then store the grains in air-tight containers.

IMPORTANT POINTERS IN THE GROWING OF ABACA [1]

(Released by the TECHNICAL DEPARTMENT of the NAFCO in Davao)

I. CLIMATE—

Do not plant abaca in places where there is a prolonged dry season or where destructive typhoons occur. In other words, there should be an even distribution of rainfall the year round.

II. SOIL AND DRAINAGE—

a. Do not plant abaca in very heavy soils. Heavy soil means one that is impenetrable to water. Lighter soils with sandy subsoils (soil below the surface) are preferable, provided there are over 18 inches or about 45 centimeters of surface soil. Also avoid soils with heavy or impervious subsoils.

b. Do not plant abaca on poorly drained soil. If one has to, provide the necessary drainage facilities. Abaca cannot stand wet feet or continuously soaked ground. The water table should at least be 2-½ feet or about 80 centimeters from the surface.

III. THE SEED PIECE—

a. Do not plant suckers in starting new abaca plantations. Corms or base "roots" (with eyes) big enough or with a volume of about 125 cubic inches (5″ x 5″) should be used. Small corms especially those cut to pieces with one "eye" or two produce weak stunted plants and naturally a high percentage of mortality is to be expected.

b. In planting corms, avoid leaving a long stump of the false or original stem. The false stem is susceptible to rot. When it dries, a space is left around the base forming a hole where water gets into. To avoid this, cut the false stem as close to the corm as possible.

c. Do not plant corms from matured stalks which rot or from those which are still dependent on the mother plants and without leaf surfaces (marks where old leaf sheaths have fallen off).

d. Procure your seeds from disease-free plantation or fields. Mosaic infestation, characterized by a network of discoloration appearing either as regular or irregular (very light yellow) stripes parallel with the veins and extending from the midrib to the edge of the leasves in the advanced stage of infection, is alarming.

e. In preparing seed pieces, remove only that portion of the corm which is diseased or bruised. This corm supplies the young growing plant with nourishment.

f. In storing seed materials, do not expose them to heat or dry them out too much. Avoid making a large pile over one

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[1] Speech delivered over Station KZRH, Saturday, March 1, 1947.

(1) meter high. Storing them in a shady place and covering them with dried leaves or grasses prevent excessive loss of moisture.

IV. PROCEDURE FOR PLANTING—

a. In planting abaca leave three (3) meters between plants or three (3) meters square. The best distance, however, is 3.25 meters by 3.25 meters square.

b. In planting the seed piece, the hole should be dug deep enough and conveniently big so that about 4 inches or about 10 centimeters of soil will cover the seed piece from its topmost portion.

c. The soil over the seed piece should form a mound to prevent the water from sinking into the hole, the mound providing a sort of water shed.

d. The seed piece should be set at an angle so that most of the visible eyes are down below or at the sides to produce well-set plants.

e. Pack the soil well around the seed piece with a blunt stick to prevent the water from accumulating in the holes. The accumulation of water is bad as it causes the seed piece to rot and at the same time prevents the soil from drying out quickly in dry weather.

V. USE OF COVER CROP TO CONTROL WEEDS AND TO KEEP THE SOIL MOIST—

a. The spaces between the rows of plants should be planted immediately to a good cover crop (unless utilized for planting rice, corn or beans) to check the growth of grasses.

b. Do not allow cover crop vines to climb the abaca plants; nor should rice or corn be allowed to shade them. The young plants should be ring-weeded to a diameter of 1.5 meters.

c. When rice or corn are planted as inter-crop, the rows of the abaca plants should be oriented to run EAST to WEST to give them all the sunlight they need.

VI. THINNING OR SELECTED PRUNING—

a. Do not allow too many plants to develop in each hill. A few strong big stalks are better than many spindly and weak ones.

b. Thinning or selective pruning should be practiced to control the young abaca plant population. Too many plants are undesirable. Inversely, a small population is conducive to the growth of grass, as there is not enough shade. Too much light invites the growth of cogon, the curse of the abaca plantation.

c. Thin Buñgolanon to 6,000 or 8,000 units and Tañgoñgon to 4,000 or 5,000 units per hectare. Maguindanao should be intermediate of the two or 5,000 or 6,000 units per hectare. By unit is meant an individual stalk rising up to adult stage including suckers attached thereto.

d. Abaca under coconut trees should be thinned more than those in the open, or to one-half the required number of units per hectare. There is more competition for light, air and plant nutrients.

e. Fallen stalks as a result of strong wind or floating corms may be removed and stripped.

VII. REVIVING OLD ABACA PLANTATIONS—

a. Reviving old abaca plantations is more economical when there are enough number of plants per unit area than establishing a new one by replanting.

b. Keep the base of the hill free from weeds to a radius of 75 centimeters, to induce suckers to come out from below the ground and to eliminate competition from weeds for plant nutrients.

c. Expose the lower stalks to provide good aeration, keeping them free from stalk rot. Cut the dry hanging leaves at a convenient height about 1.25 meters from the ground.

VIII. HARVESTING—

Never harvest immature stalks. Only *Shot stalks* or stalks which have shot out *flowers or fruits* should be harvested for fiber of maximum quality and strength.

NEVER UNDER ANY CIRCUMSTANCES OVERSTRIP.

LITTLE NUTSHELLS

Two heads are better than one, especially when one of them is a woman's.

Three ways to fail: "I wonder if I could do it?" "I should have done it." and "I will do it sometime."

Four seasons of the year, but each of Life's season should have some Spring in it.

Ten toes you have. If you want to win, keep on them.

—GALETT BURGESS

LAND SURVEYS IN THE PHILIPPINES [1]

By ELIAS IBAÑEZ

Chief, Division of Surveys, Bureau of Lands

In all the advanced countries of the world the people's desire to have their lands surveyed becomes greater and greater in direct proportion to the general progress of the area covered. This desire is completely absent among the wild tribes of Africa, Australia, and Greenland, while it is largely widespread among the inhabitants of such civilized countries as the United States, France, England, Belgium and Switzerland. It is because of the outstanding advantages derived therefrom that this desire grows stronger and stronger among the enlightened peoples of the earth. In the Philippines we have to complete the survey of an extensive area of 29,741,072 hectares. This big area includes timber lands, private lands, and public lands. The method used in the execution of land surveys in the Philippines is considered one of the best in the world. The execution is always in accordance with the law and the technical regulations issued by the Director of Lands to surveyors in private practice and those in the Government service. There are three kinds of surveys in the Philippines, and the areas surveyed under these are the following: Isolated Land Surveys, 713,536 parcels with 5,929,781 hectares; Public Land Subdivision Surveys, 81,367 parcels with 509,457 hectares; and Cadastral Surveys, 1,155,742 parcels with 4,916,920 hectares.

At present the Isolated Surveys are being executed mostly by private land surveyors. Very few of them are handled by the Bureau of Lands surveyors. All Public Land Subdivisions and Cadastral Surveys are being executed by official Survey Parties. There are five Cadastral Survey Parties executing Cadastral Surveys, four in Davao and one in Camarines Sur, approximately with 16,400 lots and 352,000 hectares. There are twenty-eight Public Lands Subdivision Survey Parties executing the Public Land Subdivision Surveys of fifty projects for the benefit of homeseekers, with 64,500 lots and an aggregate area of about 560,000 hectares. Most of the public land subdivision projects to accommodate all prospective homeseekers without delay are now in progress in Mindanao in compliance with the instruction of His Excellency, the President of the Philippines. The survey system, followed in the execution of both the Public Land Subdivisions and Cadastral Surveys, is only one, and is better and less expensive than that of Isolated Surveys.

To survey all private lands, the system to be used is the Cadastral. It is the best method ever introduced in the field of surveying and the product of both scientific experiments

[1] Speech delivered over Station KZFM during the Department of Agriculture and Natural Resources Half-Hour with the People—December 7, 1947.

and field experience. The Cadastral survey procedure employed in the Philippines is one of the most accurate in the world. The advantages of cadastral surveys in the Philippines are: (1) it is the most expeditious, economical and scientific system of surveying lands of the country for registration purposes; (2) land controversies originating from conflicting boundaries are minimized, if not entirely eliminated; (3) exact areas of all parcels of land can be determined and accurate real estate taxes based on correct assessed values may be collected to the advantage of both the government and the land owners; (4) cadastral land registration is very much simpler and much more economical than the ordinary land registration; (5) cadastral maps determine the exact location of any point or place in a surveyed area, making them very useful in construction of buildings, bridges, roads, etc., and in general, in carrying out the construction program of the Government; (6) they are good military maps and are useful for national defense; (7) an incontestable Torrens Title to any cadastral lot may be obtained through the execution of cadastral surveys and the institution of cadastral registration proceedings; (8) the title thus obtained is acceptable as security for loan in banking institutions; (9) an assurance fund guarantees compensation for any damage or loss caused to land owners through any error in the cadastral system; (10) cadastral survey will help solve unemployment problem of the country for 10 years; (11) partition of big tracts of land into small parcels is considerably hastened by the execution of cadastral surveys which are economical and systematic and this consequential effect solves to a certain degree the existing agrarian problems of the country; and (12) security of land ownership means stability of our government.

According to statistics on surveys executed for several years in the Philippines, the cost of surveying one parcel of land under the system of isolated surveys is 3.4 times that of surveying the same parcel under the cadastral system. To survey the remaining unsurveyed private lands of the Philippines, estimated at about 4,000,000 parcels, it will require an expenditure of approximately ₱65,000,000 under the cadastral system or ₱220,000,000 under the isolated system. In cadastral surveys, overlappings or survey conflicts are not problems, while they are serious ones in the isolated system. The cadastral system, therefore, is readily seen, as already mentioned, to be the most expeditious, economical and scientific system of surveying lands of the country for registration purposes.

On Commonwealth Day, November 15, 1935, the total valuation of real estate property amounted to ₱1,850,570,390. The sum of ₱65,000,000, the total expenditures in executing the general cadastral survey of the Philippines, is only 3.5 per cent of the real estate wealth of the country. Considering the fact that what is being spent on cadastral surveys can be recovered from the property owners, the execution of general cadastral survey in the Philippines will not cause any financial burden

to the Government. This important task may be completed in ten years period, spending ₱6,500,000 a year.

The Bureau of Lands has matured a plan whereby a surveying organization, both field and office, may be formed to commence and carry out to its completion this important undertaking of national importance. This progressive plan envisages the completion of the survey of all private lands of the country within the period of ten years under the most economical and systematic procedure of surveying ever known in the world.

The computations of all isolated surveys executed during the last forty years were destroyed by fire when the Oriente Building was burned on September 22, 1944. The reconstruction of these lost records would be a very costly work, enormous and tedious. By the execution of the general cadastral survey in the Philippines, this colossal and expensive reconstruction may be done away with, as all lands will be covered by cadastral surveys and all previous isolated surveys will become obsolete. This is the most opportune time to start this most important task. If the government will organize cadastral project parties, the work may be completed in ten years.

YOU'RE NEVER TOO OLD

King Gustav, of Sweden, 87, is still active in the Tennis Courts.

Walter S. Goodland, Governor of Wisconsin, took over his gubernatorial duties at the age of 80.

Mrs. Elizabeth Turk, 95, Woodgate, N. Y. complained in a lawsuit that injuries she received in an automobile accident prevented her from dancing.

Henry Ford, at 82, helped farmers at Tacumseh, Michigan, plant and harvest their wheat crops.

—HAROLD HELPER

NOTES ON FIGHTING CHICKENS

By CARLOS X. BURGOS
Chief, Livestock Extension Division
and
ESTEFANO C. FARINAS
Supervising Zootechnist, Animal Husbandry Division

This short article aims to start the compilation of information on fighting chickens about which very little is yet known by fieldmen. The writers entreat and invite anyone to submit even a sentence or a paragraph or a complete article on whatever one knows of the subject.

Keeping cockerels, in groups of ten to one hundred in a single pen, has been found possible in the case of White Leghorns, Rhode Island Reds, Barred Plymouth Rocks, Cantonese and similar breeds, but not in the case of fighting chickens. Because of the well-developed antagonistic and pugilistic instincts of the latter, it is not wise to keep them together after they have reached the breeding age. As soon as sexual maturity is reached, the fighting breeds simultaneously become ferocious and pugnacious. This characteristics make them superior over the others. A cockerel that has been cowed at an early age will fight the senior one later if provoked. The suggestion on debilling and debeaking may be tried to prevent fighting, but since the intention is to raise fighting chickens, this procedure is out of the question. The use of "Specs" or "pickguards" may also be tried, but even these may not be practical. If the intention is to try them, the "pickguards" are obtainable from leading poultry supply stores in the United States.

Chicks and growing stock of fighting chickens do best when raised in a wide range as is done by Filipinos in Stockton, California, so as to minimize fighting among themselves and to produce healthy stock. Eggs may be hatched by hens or incubators and the chicks brooded with hens or battery brooders until they can be allowed a free range.

As soon as they begin to fight, and this takes place at the adolescent period, it is necessary to segregate the cockerels in individual coops, tethering them on a lawn or grassy yard everyday during clear days from 6 to 9 o'clock in the morning by means of strings prepared for the purpose. These strings should have a wide, soft-loop on the leg and provided with a swivel device so that when the cockerel turns round, when tethered, the string will not curl or separate (see the device in a dog's chain.) The string should be one to one and a half meters long. At this period, preparing the rooster for the pit (Tagalog, "Sabuñgan") starts if desired. It is, however, the practice in this country to train fighting roosters

for the pit while they are still young. As a rule, while they are under training, they are not allowed to breed in order to conserve their strength.

The ordinary coops known locally as "balulan" can be improved by constructing them in sets of 3-stall or 5-stall or more, each stall being 50 cm. wide, 60 cm. tall and 60 cm. deep placed on a stool or platform 50 cm. high, using more permanent material than just coconut or nipa leaves. These coops should be equipped with movable litter-collecting baseboards at the bottom easy to pull out from in front of coop for cleaning out the litter. To economize space, the sets of stalls may be in tiers of 2, 3 or even 4, each tier is provided with the baseboard contraptions made preferably of galvanized iron sheets. These coops should be kept under a shed that is well ventilated and allows plenty of sunshine, but is likewise protected from drafts especially during rainy weather. Have two, 7-cm. apertures in front through which the fighting chickens can be fed from the outside and watered in troughs, preferably crockery or aluminum. (The Army surplus aluminum cups about 1/2 liter capacity is very convenient.) Use a blind between stalls to prevent fighting. The sides and partition of the coop should be made of boards. The front and back should be of 1/2 inch wire mesh or wooden slates seven (7) cm. wide, seven (7) cm. apart. The front should be a swinging door to facilitate removal of the cock at will.

The feeding of baby chicks and growing stock should follow that recommended for home or commercial chicken units of this Bureau. The feeding of cockerels or of mature cocks of fighting chickens should consist of one part of a growing mash feed mixture for the first morning feed and two parts of a scratch feed mixture given at noon and in the late afternoon all that the cocks can clear in 15 minutes of chopped green tender feeds at about 10 o'clock in the morning. They should have access, when tethered, to grit and clean soil which they may pick at will.

The development of what is termed "sampaga" is largely attributed to wrong feeding, when it is called nutritional roup. The infectious form of "sampaga" is supposed to be due to an unidentified infectious organism. Should "sampaga" be found among cockerels or roosters, the sick birds should be isolated or removed.

Keeping growing cockerels, as suggested, in groups of four in houses divided into sections seems impractical and expensive, compared to keeping them at large and the cooping in individual stalls and tethering. However, if this house arrangement is found easier to follow, have fenders 70 cm. high between the yards, the pens and the roosts to prevent one group from seeing the other groups. If this is not done, they will fight, and since there is the wire between them they will surely hurt their hind toes which they may even lose.

Daily exercise is one important factor to consider in raising fighting cocks.

Once a young cock becomes sufficiently tame, a little fighting may be allowed once or twice a week. Start with one-minute fight; then increase the fights from two to four minutes. Heavy exercise should be avoided immediately after feedings. Allow at least two hours of rest.

Other exercises may consist of holding the cock firmly by the tail from 30 seconds to one minute at a time or making it reach for its opponent by holding it near the opponent and raising it out of its reach every time it charges, repeating it several times to exercise the wings. Another exercise is termed "kahig" in Tagalog, "ayat" in Ilocano and "sabong" in Visayan. Still another is allowing the rooster to stand on a stretched string and swinging the string to and fro. This form of exercise affords a training in balancing and at the same time sets all the muscles of the body into play. Swinging a cock is one of the best ways of hardening the fighting bird in preparation for the pit when it may sometimes be necessary for it to stand a long-drawn-out fighting. This is usually done after bathing the cock and is followed by massaging until the feathers get dry and anointing the face with coconut oil.

To prepare a cock before it is pitted, it must be given practice in fighting with well-trained veteran cocks which will teach the novice the art of giving well-directed blows, the skill of parring, the tactics of timing as well as precision, and agility in the air and on the ground. Tact, carefulness and cunning as well as treachery are usually learned by an intelligent cock from a champion, although sometimes these qualities are inborn and are manifested by a young inexperienced stag.

The length of time training a cock depends on how fast an individual bird learns and becomes brave and hardy. A cockerel trained at a tender age, of course, needs a longer training and toughening. It should be noted, however, that young cocks are matched with other young cocks, although a young but brave and skillful cock may be pitted against a more mature or bigger or a veteran one. In matching, the owner or "pitter" usually wants to have advantage over the other but in practice, matches are generally even, so that in most cases a champion is paired to another champion or an old well-trained cock to another of about the same age, weight, size and condition. Cockers are very keen and scrupulous in seeing to it that their cocks are matched with only equals if not inferior ones in their visual appraisal of their opponents' roosters. In this country, the cockers appraise weight or size or quality by the looks only and are not allowed to size up the cocks of the opponents by holding their birds. In other countries, like the United States, Cuba, Mexico and South America, however, roosters are weighed and only those of equal or almost equal weights are paired. Therefore, a "pitter" in this country should be a good judge of quality, weight, age and size from the mere

appearance of the cocks, and it may be wise to state that, for purposes of deception, there are different ways by which roosters are made to appear younger than their age or smaller than they actually are.

Some raisers give their fighting cocks of over a year old a bath once a week during clear hot weather. Some spray alcohol rub over the legs, under the wings and over the breast to make them tough for the fights. How effective these measures are, we have to prove. A sharp razor, knife as used here, will penetrate easily through skin, flesh and even bone. It is possible that they are started by fanciers and just followed by others like them.

Cocks that are expected to fight at night should be exercised at night to accustom them to bright lights.

A warning concerning disease.—Whenever there is an infectious disease, as avian pest in the neighborhood it is better to confine the daily exercises within one's own premises and among one's own stock and not to allow promiscuity with other stock from neighbors. Whenever mosquitoes are plentiful it is better to protect the cooped stock with mosquito netting.

TAGALOG LIVESTOCK TERMS

(Cattle)

Guya—a calf, regardless of sex; a yearling whether male or female.
Dumalaga—a two-yearling heifer.
Namumulugan—a two-yearling bull.
Inahin—an adult cow of about 3 years or over or one that has already calved once.
Toro or *Bulugan*—an adult bull.
Capon—a steer or castrated bull.

THE GREAT WESTERN LAND GRAB

Condensed from COLLIER'S LESTER VELIE

Out of the dry, white heat of Utah's August, 150 big cattle and sheep ranchers clumped into a Salt Lake City hotel one day last year to hold conference. The ancient rivalry between cattlemen and sheepmen was forgotten in the face of a common enemy—"bureaucracy." The ranchers wanted to get their hands on public lands whose total area is half the size of the 13 mountain states. Their motive, they sincerely believed, was to save their economic hides. What they did not see was that if their scheme succeeded they might well impoverish the entire West by hastening the destruction of the West's two basic assets—its soil and its water.

At Denver early this year the big stockmen showed their hand. A joint committee of their two tightly knit trade associations, the American National Livestock Association and the National Wool Growers' Association, came out with their plan and the slogan to push it.

The plan: The Government should sell 145,000,000 acres of public lands—at present under the jurisdiction of the Department of the Interior—to a closed shop of ranchers now grazing the lands, and only to them. The price: from nine cents to $2.80 an acre. The slogan: Return the public lands to the West (i.e., to a favored 20,000 ranchers).

"If we play our cards right, we'll hit the jack pot," a leader of the stockmen said. And this 145,000,000—acre jack pot would be only a beginning. Sure to follow would be 80,000,000 acres of forest grazing land, now public domain under the wing of the U. S. Forest Service of the Department of Agriculture.

Vast areas of the range country reaching west of the Great Plains to the escarpments of the Rockies have been overstocked and overgrazed. Where lush grasses once grew belly-high to a horse, relentless cropping by too many mouths has so skinned the land that it supports only half the livestock it used to feed. Moreover, the close-cropped grass can no longer hold the soil in place when the rains come. Topsoil washes into the mountain streams which feed the great rivers of the West, loading them with silt which is slowly choking reservoirs and irrigation systems in many states.

In their play for the public lands stockmen's two trade associations speak for only a small fraction of the country's livestock output but wield authority as if they speak for all. Their lobby knows its way about Washington so well that it has won millions in new subsidies for the woolgrowers.

But the stockmen's ace in the hole is the Cow (and Sheep) Bloc in Congress, which includes some of the capital's most influential legislators. One of them, silver-haired and lovable Senator Pat McCarran, is an old hand at playing with blocs.

The chairmanship of both Senate and House public-lands sub-committees—guardians of the public domain—are held by Cow Bloc members. The chairman of the Senate committee is Senator Edward V. Robertson of Wyoming, owner of 2,400-odd sheep grazing the public ranges, ex-vice-president of the Wyoming Stock Growers' Association, and member of the American National Livestock Association.

Last year the Cow Bloc members swung into action on widely scattered fronts to liquidate the public-lands empire. Senator Carl A. Hatch of New Mexico introduced a bill to sell two-thirds of the public lands in his state for the benefit of public institutions there. Representative Frank A. Barrett of Wyoming, chairman of the House Public Lands Committee, introduced a similar do-good measure; he proposed that federal lands in his state be sold to cattlemen (at $1.25 an acre, tops) with the proceeds going to the state university. Senator Robertson didn't bother with do-good angles; he proposed simply that the public lands, property of all Americans, be turned over to the states in which they lie. Presumably, the western livestockmen, acting through their legislatures, could take it from there.

Meanwhile the stockmen waged a struggle for public opinion in the West itself. To their surprise, they found that their self-imposed crusade to "return the public lands to the West" evoked little gratitude from fellow Westerners. Instead, the livestockman—long the darling of the cowboy country—found himself pilloried as a grasping destroyer of the West's lands and waters.

Even the stockmen's neighbors and old friends couldn't go along with them on this deal. Charles J. Moynihan, law partner of Dan Hughes, the Colorado sheepman who is spearheading the stockmen's public-lands drive, wrote Washington officials: "I can't imagine the West I've always known being fenced in by private owners. It will make a feudal province out of the Rocky Mountain region . . . and will affect our concept of democracy." Lee Knous, governor of Colorado, and an ex-partner of Hughes, told him, "It's inconceivable, Dan, that Congress would enact such legislation or that the public would support it."

In Utah, Senator Arthur V. Watkins polled ranchers and others, and found sentiment two to one against the land-sale proposal. The Denver Post and the Rocky Mountain News blasted the scheme.

By early summer the counter-attack had gathered such force that rumblings reached Washington. There J. Byron Wilson, woolgrowers' lobbyist, advised the boys back home that the land sale had become so hot a political potato they'd better let it cool. With his ear cocked to the thunder from the West, Senator Johnson of Colorado called the land drive "the most selfish proposal of all time." Even Senator McCarran beat a retreat.

But what the people of the West do not know is that the public lands have already, in effect, been turned over to the

stockmen. What public opinion barred the stockmen from doing openly, the Cow Bloc in Congress has done quietly.

In 1934 Congress passed the Taylor Grazing Act, to "prevent overgrazing and soil deterioration." This law set up the Department of the Interior's Grazing Service to police the public lands, in which stockmen have bargain-price grazing rights. Most of the western stockmen approved. But not the big ranchers. While loudly urging that the public lands be "returned to the West," they have quietly and successfully undermined the Taylor Act.

It was easy. The Cow Bloc simply helped slash appropriations for policing the stockmen on the public lands. Congress cut the grazing field service budget from $1,070,360 to $373,000.

This meant that there could be only one office in each state to regulate 145,000,000 acres of range lands used by 20,000-odd ranchers. It meant that of 250-odd range examiners and graziers (inspectors) only 30-odd remained to patrol and police. And this added up to no federal inspection and control, since surviving personnel would have its hands full with paper work. In actual practice the Taylor Grazing Act have been repealed.

Small ranchers are worried.

"With the supervision cut, there'll be a struggle for the range, and the little guy'll get pushed around," say Ed Ennis, who runs 400 head of cattle in Grand County, Colorado.

"Maybe we'll have some old-fashioned range wars. Trespassing? Over-grazing? Sure, how are we going to stop it?" Ennis and his friend have been bombarding their congressmen to restore Grazing Service appropriations.

The critical area that controls the arid West's water resources is the watershed region which lies chiefly in the forested uplands of Colorado and Wyoming—much of it within the 80,000,000 acres of grazing lands administered and protected by the Forest Service of the Department of Agriculture. Now, with the scalp of the Department of Interior's Grazing Service tied to their belts, the big stockmen are out to get these Forest Service lands. More than half of this area is badly depleted already, but efforts to cut down the numbers of cattle and sheep that graze there have plunged the Forest Service into a battle for its life.

Senator McCarran is in there pitching with a bill which the American National Livestock Association has been trying to pass for several years. The Forest Service administers its range lands with the advice of voluntary boards of stockmen, and the bill seeks to legalize these boards. Once legalized, their "advice" may become orders. But the bill packs another wallop: It would freeze permits in the hands of present holders, many of them big ranchers, thus setting up a monopoly in the use of forest ranges.

Meanwhile the stripped earth continues to wash away into the West's rivers. I stood in a gentle rain near the Continental Divide above Boulder, Colo., and watched a segment of the pro-

cess which threatens the life of a whole region. A mountain stream which once ran clear and sparkling was now soil-choked. "Too thick to drink and too thin to plow," a forest ranger put it. The Colorado, the Rio Grande and other great river systems are depositing millions of tons of topsoil from the range lands in the mammoth reservoirs which help nourish the semiarid West. The Elephant Butte Dam, built to guarantee water to New Mexico "forever," is already so choked with silt deposited by the Rio Grande that the state is alarmed over its water supply. The 2,000,000 citizens of Los Angeles rely on Colorado River Water, impounded at Lake Mead behind Hoover Dam in Arizona. Los Angeles spent $240,000,000 to tap the water (and power) of Lake Mead, and the federal government spent about $165,000,000 more. But inexorably, day after day, the Colorado deposits some 14,000 carloads of silt on the floor of Lake Mead, gradually filling it in.

A forest ranger commented bitterly: "Congress is spending billions for concrete dams to store water, but it won't spend pennies for the millions of little dams we protect—the blades of grass nature designed to save the land and water."

The lesson of the choking reservoirs, of the eroding grasslands and increasing floods is plain: A unified government command is needed in the fight against the forces of soil destruction. What we have now is a bureaucratic patchwork of seven major agencies and dozens of smaller units. In this setup, jurisdictional rows are natural. Intent on intra-governmental politics, the individual agencies sometimes are easy prey for minority pressure groups.

Eastern and midwestern Congressmen have permitted the public-lands committees in the Senate and House to go by default to Westerners. This does two things. It opens up western Congressmen to the toughest sort of pressure—that of their own constituents. It also creates the illusion that only the West has an interest in public lands. But what happens on public lands vitally concerns the whole nation. Conservation is not an eastern interest, nor western, nor New Deal.

"We are tired of being bossed around by a bunch of Communist-minded bureaucrats," J. Elmer Brock, vice-president of the American National Livestock Association, protested.

A list of some of these conservation "Communists" might surprise Stalin! President Calvin Coolidge and Herbert Hoover did the preliminary boring from within which led to passage of the Taylor Grazing Act. President Taft laid the ground work for the National Park Service, created in the Woodrow Wilson Administration. And President Teddy Roosevelt was the "Karl Marx" of the whole conservation idea.

If, as the stockmen say, it is un-American to conserve our forests and grasslands, in a very few generations it may be un-American to eat—*The Reader's Digest, November, 1947.*

DEPARTMENT AND BUREAUS ROUNDUP

BUREAU OF FORESTRY

Two representatives, Mr. Jose Viado and Mr. Isidoro Francisco, were elected December 15, 1947 to the Council of Personnel Administration.

DIRECTOR RODRIGUEZ FELICITATES DIRECTOR TAMESIS

Director Eulogio B. Rodriguez of the National Library felicitated Director Tamesis with a New Year's Greeting in the form of an essay written by him entitled, "MY FOREST" quoted as follows:

> "Trees are monuments of nature which God has given us to link the memory of the past with the present and the future. They are the links which hold together the unbroken lines of countless generations. One cannot but feel impressed with their symmetrical beauty, their graceful spreading branches holding out to the sunshine like outstretched arms asking for the gift of Heaven. Their branches offer the birds a safe haven for their earthly existence so that they may sing the song of delight. Trees and birds are poetry and music.
>
> I like forest as I like people; individuals are like trees. It is the individuals that make up a people; it is the trees that make up a forest. And trees contribute to the interplay of sound, light and shade of the forest, as individuals contribute to the characteristic traits of a people.
>
> I wish I could repose by a purling forest-stream so I can admire the forest hues in lighter or deeper shades as reflected from its crystalline waters. I cherish looking thru the open glades that permit the sun's rays to be filtered thru the swaying branches of the trees, while the wind stirs the leaves causing them to cast circles of dazzling light on the green velvety floor of our good earth. The character of the forest is subject to variety of changes occurring at every moment; so is the character of the people. The forest and the people are the most interesting and noblest works of creations. I love nature. I love the better nature of man."

REFORESTATION URGED BY CEBU PLANNING BOARD

Agustin Jereza, Chairman of the Cebu Planning Board sought the co-operation of all mayors and municipal councils of the Province of Cebu, in reforestation work. He believes that should the present deforestation of our hills and mountains continue to prevail unchecked and unabated, the fearful prediction that Cebu will seriously become a desert will be a sad and gory reality. He enjoined the people to stop cutting the trees and to encourage reforestation.

WHAT DO WE PLANT WHEN WE PLANT A TREE?

What do we plant when we plant a tree? "We plant love . . .!" claimed Provincial Forester Rafael San Pedro of Lucena, Quezon, speaking as guest speaker at the Bulacan High School grounds during the celebration of Arbor Day in April, 1947. Executive

Officer Delfin Española of Malaybalay Reforestation Project, Bukidnon, plants a lot more saying:

> "When we plant the trees in the yards, public grounds, plazas, school grounds and along the highways, we plant the beauty and shades for our welfare and the generations to come.
>
> When we plant the trees along the boundaries of our lands, we plant the landmarks of our property, protection of our fruit trees and homes against strong wind that may blow them down or shake to the ground the flowers and the fruits of the trees; and we plant the homes of the birds that will sing around our place and eat the insects that destroy our agricultural plants.
>
> When we plant the trees in our lands not suitable for agricultural purposes, we plant the endless supply of firewood needed in our homes and probably some timber for our future use. When we plant the trees in cogon areas which are not needed for agricultural purposes, we plant the protection of the soil from erosion and a means to get rid of the cogon areas which are the breeding places of the locusts that will graze to the ground our agricultural crops; and of course for the timber that will give income to the government in the years to come."

From a press release by the Provincial Forester, Baguio City, the government netted recently an income of ₱3,014.35 from the sale of 12,667 X'mas pine trees. In addition, about 500 pine trees, 300 of which were cut from registered private lands and 200 from Military Reservations, were given free of charge to the Philippine National Red Cross, Philippine Tuberculosis Society, Philippine General Hospital and other charitable institutions.

In the meeting of the Bureau of Forestry Chapter, Philippine Government Employees' Association, on January 15, 1948, the following were elected officers for the current year: Chairman, Forester Doroteo Soriano (reelected); Vice Chairman, Forester Placido Dacanay; Secretary, Forester Juan Daproza (reelected); Treasurer, Mr. Lorenzo Sison; Auditor, Mr. Isidro Francisco (reelected); and Delegate, Junior Forester Jose Viado.

DACAM'S 10TH ANNIVERSARY

Notwithstanding the reorganization which brought out the separation of the Bureau of Commerce from the Department of Agriculture and Natural Resources, the members of the DACAMS (Department of Agriculture and Commerce Association of Mindanao and Sulu) continue to exist together and last November 8 they observed the 10th anniversary of the organization.

At this anniversary, problems confronting the various offices were discussed, the annual meeting and elections were held, followed by tree planting and picture taking, a banquet and a dance in the evening in honor of Forester Valentin Sajor, the out-going president.

Among the subjects brought up and discussed were: "Rehabilitation on Small Farms," by Provincial Agricultural Supervisor Primo Santiago; "The Functions and Organization of the Bureau of Forestry as Affected by the Reorganization," by Provincial Forester Vicente R. Marababol; "Rehabilitation of Animal Industry," by District Veterinarian, Dr. Gregorio Goloyogo; "Problems of Filipino Retailers," by Provincial Commercial Agent Martino Ch. Guitarte and "New Deal to Government Employees," by District Land Officer Victoriano Itchon.

Elected officers and council members of the DACAMS for the year 1947–1948, are as follows: Victoriano Itchon, president; Dr. Gregorio C. Goloyogo, vice-president; Primo Santiago, treasurer; Vicente R. Marababol, secretary; and council members: Bureau of Animal Industry, Gregorio C. Goloyogo and Fabian Guiritan; Bureau of Commerce, Martino Ch. Guitarte; Bureau of Forestry (Misamis Oriental), Vicente R. Marababol and Gregorio L. Santos; Bureau of Forestry (Bukidnon), Rufino A. Sabado and Conrado B. Verendia; Cinchona Plantation, Conrado B. Tadeo; Bureau of Lands, Victoriano Itchon, Carlos O. Fernandez, Mariano N. Leones and Ciriaco Mabunga; Bureau of Plant Industry (Bukidnon), Alfredo D. Pablo and Catalino Damasco; Bureau of Plant Industry (Misamis Oriental), Primo Santiago and Manuel Abao; Weather Bureau, Agaton Edmilao.

FORESTRY DAY CELEBRATED

The inclement weather did not prevent the Forestry Day observance last November 30 from being a success. More than one thousand persons braved the steady downpour to attend the program. Director Florencio Tamesis conveyed to the audience the regrets of Secretary Mariano Garchitorena, the guest speaker, for his inability to attend on account of illness.

Among those who attended were President Bienvenido M. Gonzales of the University of the Philippines, faculty members of the College of Agriculture, Director Felix D. Maramba of the Bureau of Plant Industry, Director Deogracias V. Villadolid of the Bureau of Fisheries, student nurses of the North General Hospital, forestry alumni, members of the Forestry Youth Circle and employees of the Central Office of the Bureau of Forestry and ladies from the College of Dentistry, University of the Philippines. After luncheon, a tea danzant was enjoyed at the Forestry Pavilion until late in the afternoon.

FORESTRY LEAVES OFF THE PRESS

The souvenir issue of the *Forestry Leaves*, organ of the student body of the School of Forestry, University of the Philippines, was distributed on the forestry campus, Los Baños, Laguna, during the forestry day celebration. This issue is dedicated to the memory of those who devoted their lives to the cause of forestry. In this issue are messages of the Honorable Mariano Garchitorena and Dr. Bienvenido M. Gonzales; feature articles as follows: "Trends of the Lumber Industry," by

Director Florencio Tamasis; "Cinchona Plantation of the Government," by P. San Buenaventura; "Post Liberation Problems of the Bureau of Forestry," by Carlos Sulit; "The Rehabilitation of the Philippine Lumber Industry," by Felipe R. Amos; "What Has Been Accomplished in Reforestation," by Placido Dacanay and "Urgency of Forest Research," by Eugenio de la Cruz.

REFORESTATION ON THE MARCH

Forester Placido Dacanay, Chief, Division of Reclamation and Reforestation, was guest speaker in a radio broadcast of the Department of Agriculture and Natural Resources on November 23, 1947. He spoke on the accomplishment in reforestation work. He said that before the war over half a million hectares of grass lands were intensively studied and provided with detailed planting plans; 35 projects established with 200 hectares of forest nurseries with an annual rated capacity of 17 million seedlings and 28,000 hectares of plantation maintained and stocked with 25 million young trees of economic value. With the recent passage of Republic Act No. 115 in Congress, a permanent source of fund was created and impetus in reforestation work greatly accelerated.

LUMBER EXPORT BAN PARTIALLY LIFTED

According to the November, 1947 issue of the *"Timberman,"* the first shipment of Philippine logs and veneer flitches to the North Pacific since the war reached Portland, Oregon, September 23, for the Olympic Manufacturing Corporation of Gresham, Oregon, producers of hardwood veneers. The consignment, arriving on the *Washington Mail,* totaling 500,000 board feet of logs and 25,000 board feet of veneer flitches consisted of red lauan, tangile and almon. Suppliers were the Nasipit Lumber Company, which sent 200,000 board feet of logs and 25,000 board feet of veneer flitches, and the Santa Clara Lumber Company, which shipped 300,000 board feet. Up to the present, a total of 3 million board feet were exported to the United States, of which $2\frac{1}{2}$ millions were logs and $\frac{1}{2}$ million were flitches.

Under existing embargo regulations, Philippine producers can export only 20 per cent of their previous production and only select export grade logs and flitches, 8″ × 8″ or larger. The inclusion of sawn lumber for export is now under consideration. As planned, only 20 per cent of the production including sawn lumber, will be permitted for export during the next six months, during which time, effects on the local market will be observed. This partial lifting of the sawn lumber export ban was made upon the recommendation of the Bureau of Forestry and petition of lumbermen who gave assurance that they would keep the price of lumber in the local market at a reasonable level.

In the annual meeting of the Bureau of Forestry Cooperative Association which took place on January 21, 1948, nine out of the eleven members of the Board of Directors last year were reelected and two were new. Reelected—Messrs. P. San Buenaventura, Doroteo Soriano, Carlos Sulit, Tomas Roque, Placido Dacanay, Evaristo Tabat, Severo Oliveros, Ramon Acuña and Miss Felicidad Olivares; New members—Messrs. Juan Daproza and Tiburcio Serevo.

On January 27, the Board of Directors met and elected the following officers for the current year: president, Forester Placido Dacanay; vice-president, Forester Tomas N. Roque; secretary, Forester Florencio Assidao; treasurer, Mr. Lorenzo Sison; auditor, Senior Ranger Jose M. Cortes; business manager, Forester Evaristo Tabat; and assistant business manager, Senior Ranger Paciano Rimando.

The personnel of the Division of Forest Engineering were hosts to Director Florencio Tamesis and division chiefs of the Bureau in a pre-Christmas luncheon on December 24, 1947. The affair was under the management of Mr. Hermogenes Reyes.

The traditional Christmas program took place in the evening of December 24, 1947, at the Bureau of Forestry building. Forester Felix Franco was the principal speaker. There were songs, native and foreign dances, declamations, instrumental numbers and a *tableau* depicting the birth of the Messiah. Director Tamesis gave the concluding remarks. The greetings of former Director Arthur F. Fischer from the United States and from Forester Espinosa from far-off Mati were read to the audience.

CHANGES IN PERSONNEL

BUREAU OF LANDS

Maria Z. Punzalan, clerk, promoted from ₱840 to ₱960, effective November 16, 1947.

Isaias Bobadilla, clerk, promoted from ₱1,200 to ₱1,440, effective October 16, 1947.

Isagani F. Sabiniano, clerk, promoted from ₱600 to ₱660, effective October 16, 1947.

Ricardo F. Reyes, Assistant Surveyor, promoted from ₱1,200 to ₱1,320, effective February 1, 1947.

Victoriano Suriaga, Assistant Public Lands Inspector, promoted from ₱960 to ₱1,200, effective January 1, 1948.

Fernando San Gabriel, clerk, promoted from ₱840 to ₱900 effective October 16, 1947.

Teresita M. del Rosario, clerk, promoted from ₱600 to ₱660, effective January 1, 1948.

Gavino Bangalan, Jr., computer, promoted from ₱840 to ₱960, effective February 1, 1947.

Ernesto Lopez, Topographical Draftsman, promoted from ₱1,440 to ₱1,800, effective February 1, 1947.

Jose L. Espino, promoted from Surveyor at ₱1,800 to Provincial Land Officer at ₱2,400 per annum effective October 16, 1947.

Andres Danting, promoted from Junior Public Lands Inspector at ₱840 to Assistant Public Lands Inspector at ₱1,200 per annum effective October 16, 1947.

Rafael Garrido, clerk, promoted from ₱840 to ₱900 effective July 1, 1947.

Severino Nico, promoted from Supervising Surveyor at ₱3,960 to Division Inspector at ₱4,200 per anum, effective October 16, 1947.

Demetrio Afan, promoted from Junior Computer at ₱900 to Assistant Computer at ₱1,200 per annum, effective September 1, 1947.

BUREAU OF FORESTRY

Jose M. Cortes, Ranger, promoted from ₱1,200 to ₱1,320 per annum, effective April 1, 1947.

Florencio Assidao, promoted from Assistant Forester at ₱2,940 to Forester at ₱3,120 per annum, effective October 16, 1947.

Braulio Cristobal, Forester, promoted from ₱3,120 to ₱3,300 per annum, effective October 16, 1947.

BUREAU OF PLANT INDUSTRY

Teotimo Makalinao, Jr., Plant Sanitation Inspector, promoted from ₱660 to ₱1,080 per annum effective October 16, 1947.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
OFFICE OF THE SECRETARY
MANILA

FORESTRY ADMINISTRATIVE ORDER No. 11-1 — *December 6, 1947*

SUBJECT: *Amending Paragraph 8 of Forestry Administrative Order No. 11, dated August 8, 1947, entitled, "Regulations Governing Collection and Disposition of Reforestation Funds."*

1. Paragraph 8 of Forestry Administrative Order No. 11, dated August 8, 1947, and entitled, "Regulations Governing Collection and Disposition of Reforestation Funds," is hereby amended to read as follows:

> "8. *Monthly Report of Collection.*—Within the first ten days of each month the Collecting Officers shall submit a report to the Director of Forestry, Manila, on the collections made during the preceding month and remit the amount to the Provincial or City Treasurer, as the case may be, in turn, shall remit the same to the Director of Forestry, Manila. Said collections shall in no way be made a part of the regular forest charges collected by the Bureau of Internal Revenue as provided in section 264 of the National Internal Revenue Code. For this purpose, the amounts collected should not be accounted for in the reports of collections in the Bureau of Internal Revenue Forms (BIR Forms Nos. 12.01 and 12.02)."

2. This Forestry Administrative Order shall take effect on December 1, 1947.

(Sgd.) MARIANO GARCHITORENA
Secretary of Agriculture and Natural Resources

Recommended by:

(Sgd.) FLORENCIO TAMESIS
Director of Forestry

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
OFFICE OF THE SECRETARY
MANILA

SPECIAL ORDER
No. 67

November 19, 1947

SUBJECT: *Detailing Mr. Eduardo R. Alvarado to the Office of the President and designating Mr. Arturo Bengzon as Acting Chief of the Division of Publications.*

1. Effective as of November 6, 1947, Mr. Eduardo R. Alvarado is hereby detailed to the Office of the Press Relations Secretary of the Office of the President in accordance with an understanding had with the office.

2. Mr. Arturo Bengzon is hereby designated Acting Chief of the Division of Publications during the detail of Mr. Alvarado in the Office of the President in addition to his regular duties as Assistant Chief of the Division of Publications.

(Sgd.) JOSE S. CAMUS
Under Secretary of Agriculture and Natural Resources

LOCAL AND FOREIGN NEWS IN A NUTSHELL

LOCAL

November 1.—President Manuel Roxas last night reiterated his invitation to American capitalists to invest in the Philippines and hereby step up the industrialization program of the Republic, in a brief speech accepting the revised report of the Beyster committee at the Manila Hotel.

The Beyster report which blueprints the industrialization of the Philippines, will be submitted by the President to the National Economic Council for consideration and approval. The Philippine Congress, said the President, will be asked to implement this program.

The President characterized the report as one which has been produced after a thorough and painstaking investigation of the total destruction wrought by the Japanese in the Philippines and of the industrial possibilities of this country today.

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November 6.—Labor-Secretary Pedro Magsalin yesterday revealed his plan to create a National Employment Service that will function under his Department.

The plan is aimed as a remedy to the unemployment problem in the Islands. Provincial offices and committees will be created and each committee will be represented by a representative of the labor group, of the business concern and the branch office of the Department of Labor, it was learned.

According to figures there are around 400,000 unemployed throughout the Islands.

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November 11.—More than four million registered electors will trek to the polls today to participate in the first general elections in the Philippines as a free independent Republic.

National as well as provincial and municipal offices are to be filled in today's balloting, the winning candidates to assume their positions on the first of January of next year.

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November 16.—The Supreme Court by a 6 to 4 vote, barred aliens from acquiring residential lands in the Philippines, in a precedent-setting decision yesterday. The High Tribunal, through Chief Justice Manuel V. Moran, upheld the register of deeds of Manila denying Alexander A. Krivenko, a stateless Russian, from recording his residential land.

The decision of the Supreme Court yesterday reversed the opinion of Secretary of Justice Roman Ozaeta last August 12, which directed the registers of deeds throughout the country to record the residential land-holdings of aliens.

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November 24,—Addressing the opening session of the ECAFE convention at 3:30 p.m. today, President Manuel Roxas obliquely warned the United States that abandonment of Asians and other Far Eastern peoples is dangerous to world peace.

Obviously referring to the Marshall Plan and the Truman Doctrine, the Philippine President said that if the ideal of One World is to be achieved, world cooperation on the solution of world problems must be rationalized. Men and women irrespective of race or nationality, should be looked upon as human beings entitled to the same consideration and attention, President Roxas continued.

Giving three reasons why assistance to Asian countries should not be neglected, Roxas impugned the Marshall Plan and the Truman Doctrine as a menace to world peace if applied only to European Nations. He said, "If the motive behind present plans to aid European nations is pure altruism, the more depressed peoples of Asia and the Far East have at least an equal claim to that generosity. If the motive is materialistic or partly predicated on the need of maintaining a certain volume of exports, then I submit that Asia and the Far Eastern countries if assisted in equal measure, would provide greater and progressively more profitable market for such exports. Finally if the motive is to avoid what some nations believe is danger of large populations of the world embracing a political and economic system which destroys human freedom and endanger the peace of the world," he stressed, "I maintain that Asia and the Far East should not be neglected."

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November 29.—Work on the ₱2,000,000 ten-kilometer Ipo-Novaliches new line of aqueducts will start within a few days, according to Metropolitan Water District authorities last night.

The new aqueducts are intended to give Manila's 1,700,000 inhabitants and suburban population a steady supply of water even during the dry season.

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November 30.—The Philippines today took the spotlight as Miguel Cuaderno, Chief of the Philippine delegation and vice-president of the ECAFE, was unanimously elected chairman of the commission's Committee No. 1. The main task of this committee is to make detailed study of ECAFE methods and functions.

November 30.—The Filipinos who have just won political freedom from foreign sovereignty still need freedom conditions that exist in this land, namely, freedom from social injustice, economic depression and lawlessness, declared President Roxas in a message keynoting the observance today of National Heroes' Day.

The President's message was given yesterday in Baguio on the eve of the anniversary of the birthday of Andres Bonifacio who sounded the first call for armed resistance by the Filipinos against Spain in 1896.

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December 5.—An ambitious program for the industrial development of Asia and the saving of millions of Orientals from hunger by lowering the price of rice was approved today by Committee No. 1.

There were two of the resolutions passed as delegates to the ECAFE conference, determined to adjourn tomorrow (Saturday) as scheduled, rushed the confab work the whole day today and tonight.

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December 6.—Following a conference between President Roxas and sugar planters and centralists this morning, President Roxas issued a statement announcing an increase in the allotment of sugar for domestic consumption from 90,000 short tons this year.

With this decision, domestic prices are expected to toboggan down to the level of export price of ₱14 or less per picul.

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December 7.—The second session of the ECAFE closed at exactly five o'clock this afternoon, with the delegates confident that important decisions have been made that would accelerate the reconstruction and development of Asia and the Far East.

The next session will be held in India not later than May 15, 1948.

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December 10.—The presence of 1,000 Japanese stragglers in the hinterlands of Davao was reported by wire to Secretary of Interior Jose P. Zulueta yesterday by Major Jose Jereza, MPC Commander in that province.

In his report to the interior department head, Major Jereza indicated that the MP force in that province is not sufficiently strong to encounter the Japanese and that he wanted reinforcements from neighboring provinces be sent to him immediately.

December 12.—The Philippines today accepted membership in the Palestine Commission when President Roxas wired General Carlos P. Romulo, Philippine Delegate to the United Nations, who is now in Geneva, Switzerland, to notify UN Secretary General Trygvie Lie of the decision of the Republic.

Acceptance of the membership to the commission was announced by the President after his conference this afternoon with Vice-President Elpidio Quirino, who is also Secretary of Foreign Affairs. Quirino told newsmen that President Roxas will shortly announce the membership of the Filipino delegation to the Korean Commission.

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December 19.—Philippine participation in the deliberations of the Korean Commission will offer a good opportunity for better Philippine-Russian relations and may often change the attitude of the Soviets toward the Philippines, according to Vice-President Elpidio Quirino in a press interview last night.

Vice-President Quirino conferred with Senator Melecio Arranz newly named Philippine delegate to the Korean Commission at his office last night at Malacañan. They discussed the duties of the Philippine representative to that International body.

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December 20.—The Court of Industrial Relations in a precedent-setting resolution in banc yesterday upheld the cause of labor and obliquely ordered all industrial companies to pay workers their salaries during the period of their absence from work on account of sickness.

In a unanimous decision penned by Presiding Judge Arsenio C. Roldan, concurred in by Judges Juan L. Lanting and Vicente Jimenez Yanzon, the CIR placed sick laborers above the level of broken down machines which are repaired at the expense of the firm's capital.

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December 20.—President Manuel Roxas last night created the Boxing Commission which will control and supervise professional boxing in the Philippines and at the same time announced the members of the body as follows: former Bank Commissioner Tirso Garcia, chairman; Manuel Villareal, and Jaime Vergara, members.

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December 21.—Tragedy struck at the Rizal Coliseum last night during the hectic fourth round of the Ortiz-Del Rosario championship bout when Benigno Aquino, former speaker of the Philippine Assembly, senator and cabinet member in the Common-

wealth Government, succumbed to a heart attack. He was rushed to the Philippine General Hospital where he died at 10:42 p. m.

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December 21.—Manuel Ortiz, of Mexico, last night successfully defended his world bantamweight crown when he decisively defeated the Filipino challenger, Tirso del Rosario, in 15 blistering rounds that had the large crowd almost insane with excitement at the Rizal Coliseum.

This marked Ortiz' 17th successful title defense and 18th world championship tussle. The champ tipped the beam at 118 lbs. while Tirso weighed 117¾ lbs.

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December 23.—Vice-President Elpidio Quirino, concurrently Secretary of Foreign Affairs, last night announced the designation of Senator Vicente J. Francisco, majority floor leader in the Philippine Senate, as Philippine delegate to the Palestine Commission.

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December 24.—Upon the recommendations of President Manuel Roxas, the cabinet meeting yesterday noon at Malacañan approved the appropriation of ₱2,000,000 from available sweepstakes funds to be turned over to the People's Homesite and Housing Corporation for the reconstruction of houses of low-salaried government employees.

The cabinet made its decision to aid the low-salaried employees after President Roxas had explained his program of helping the poor government workers and after Budget Commissioner Pio Pedrosa had certified to the availability of the funds.

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December 27.—The worst typhoon since 1937 struck Manila with its full impact yesterday morning, leaving the city in a state of calamity. The entire city lies prostrate still being lashed by the tail of an 80-mile hurricane, which struck while Christmas celebrations were still in progress.

The casualties: three killed, 14 injured, hundreds of families homeless. Property toll: No official estimate was available, but damages is expected to mount to more than ₱10,000,000. Millions of pesos were also lost by the paralyzation of business.

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December 27.—The following, in the opinion of the editors and columnists of the Manila Chronicle, are the ten biggest local news stories and the ten biggest foreign news in 1947:

LOCAL

Attempted assasination of President Roxas
November 11 elections
ECAFE confab in Baguio
Grant of parity to US citizens
"Lili Marlene" crash
Government scandals
Lee-Parulan-Caballero murder case
Krivenko case
Ortiz-Del Rosario fight
MP operations against the Huks

FOREIGN

Failure of Big 4 conference
US-USSR "cold war"
Indonesian war
Independence, partition of India
Truman Doctrine and Marshall plan
Wedding of Princess Elizabeth of England
GOP victory in US election
Flying discs stories
Palestine partition
Series of airplane crashes

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December 28.—The program for the power and industrial development project for the Philippines has been completed by the Westinghouse Company and will be submitted for approval to President Roxas by the first week of January, Filemon C. Rodriguez, chief engineer of the National Power Corporation, revealed yesterday.

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December 28.—Twenty-nine of the 63 persons aboard the sleek Danish ship *Kina* when she ran aground off Samar island on Christmas night are safe and the air-sea search for the others is being pressed vigorously, the East Asiatic Company announced late Saturday.

The Company, which operated the new 9,823-ton vessel built since the war, said it had just received word by radio from the Norwegian rescue ship *Samuel Bakke* that 12 of the *Kina's* 13 passengers and 17 of her crew were "safe" in Calbayog, a port on eastern Samar.

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December 30.—In recommendation of President Roxas, the cabinet at its meeting yesterday noon in Malacañan, approved the release of ₱300,000 for the repair and reconstruction of school buildings and public works destroyed by "Jean" in the ravaged provinces and municipalities.

Following the cabinet's approval of the release of the fund, Secretary of Public Works Ricardo Nepomuceno announced that his department has ₱350,000 for reconstruction purposes, and that the approved amount could be released immediately.

The cabinet also approved the appointment of Vicente Orosa as Undersecretary of Public Works vice Sergio Bayan who had been named general manager of the Manila Railroad Company. Bayan was recently elected by the board of directors of the railroad as permanent general manager of the railroad.

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December 30.—A nation reeling from devastation blows by the elements will pause today to render homage to its greatest son who, 51 year ago, gave up his life that his country might live.

President Manuel Roxas leads the nationwide observance of Rizal Day when he places a wreath at the foot of the monument at the Luneta, where the national hero, in the misty morning of December 30, 1896, bravely faced a firing squad.

From the Luneta, the President, accompanied by the Knights of Rizal will go to Fort Santiago to visit the cell where Rizal spent his last hours. The President will return to the Luneta after his visit at Fort Santiago to review the Rizal Day parade on the grandstand.

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December 31.—Completing the members of his cabinet, President Manuel Roxas last night signed the appointment of Surplus Property Commission Chairman Placido L. Mapa as Secretary of the newly created Department of Commerce and Industry. Malacañan announced that Mapa will assume his new office on January 1.

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December 31.—Col. Manuel de la Fuente, chief of police of Manila, will be sworn in as mayor of Manila by President Manuel Roxas at Malacañan tomorrow morning, January 1, it was learned today.

Secretary of Interior Jose C. Zulueta who was scheduled to administer oath of office, is leaving for Iloilo today to induct into office the provincial governor, board members and municipal mayors of Iloilo, his home-province.

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FOREIGN

Lake Success, N. Y. November 1 (AP).—Delegate Carlos P. Romulo of the Philippines, speaking before the United Nations assembly's political committee after it had approved by a vote of 41–0 an American resolution providing for election of Korean representatives to take part in the U. N. Korean debate, appealed today for U. S.-Soviet conciliation on the issue.

In a direct plea to the two big powers, Romulo said, "I think I speak the mind of all who saw their nations devastated by the

enemy—we beg, plead and beseech the Soviet Union and the United States, do not let technicalities bar a settlement in Korea Find agreement and peace—and all the world will be thankful."

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Stockholm, November 1 (AP).—A Czech-American chemist and his wife from St. Louis, Missouri, will share the 1947 Nobel Prize for medicine with a Buenos Aires doctor.

Winners of the prize of 176,115 crowns ($48,921) are Dr. Carl. F. Cori and Gerty Cori of Washington University, St. Louis, and Dr. B. A. Houssay, chief of the Instituto de Biologia y Medicina Experimental in Buenos Aires.

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New York, November 4 (AP).—Most of the major problems of the United Nations assembly remained unsolved today after seven weeks of debating and maneuvering among the 57 member countries. There is no sign of healing the deep Soviet-United States rift which appears in every action of the assembly.

Secretary General Trygve Lie's staff has decided to step up the tempo of the assembly.

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Bangkok, November 10 (UP).—A military group believed headed by former Premier Field Marshall Luang Phibun Songgram seized Siam's key government offices by force Sunday morning and announced that the present prime minister and other high officials had fled the capital as the "coup d'etat" struck.

Premier Rear Admiral Luang Thamrong Nawasawat and Defense Force Commander Adul Aduldet Charat were reported by the new military group to have left Bangkok. The army commander-in-chief was said to be assembling troops from outlying stations to strike back at the instigators of the coup.

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Washington, November 12 (AP).—Secretary of state George C. Marshall's plea for emergency and long range aid for Europe today won adherents among a large segment of the membership of the congressional foreign affairs committees.

Marshall told the U. S. Congress Monday that $597,000,000 is needed to carry France, Italy and Austria through next March—and he estimated another $7,500,000 will be needed to initiate a long range western Europe recovery program during the 15 months beginning April 1.

Washington, November 15 (AP).—A Philippine embassy spokesman said today the Island Republic is asking 11,000 tons special flour allotment from American supplies for December.

An Agriculture Department official said, however, "We are trying to squeeze through without it." The agriculture official continued, "We are inclined to believe the Islands have sufficient flour to meet December needs. They are inclined to overbuy as witnessed last spring when they revealed they possessed 100,000 tons requiring 30,000 tons to be sent to Japan to prevent spoilage. The Islands received 41,000 tons of flour or wheat equivalent since last July 1 and we believe this is about their actual consumption."

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London, November 20 (AP).—Princess Elizabeth, heiress to the British throne, and Lieutenant Philip Mountbatten, the Duke of Edinburgh, were married today by the Archbishop of Canterbury.

Nearly 3,000 persons, kings, queens, bluebloods and commoners from all parts of the world witnessed the ceremony performed before the gleaming altar of Westminster Abbey, England's most hallowed edifice.

Outside, a sea of people, many of them soaked by an early morning drizzle, churned while waiting their first glimpse of the royal bride and her husband, who was elevated to the peerage last night.

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Washington, November 22 (AP).—An annual expenditure of upward of $30,000,000 which will be good for the Philippines economically would be involved should the United States entertain the proposal of President Manuel Roxas to keep in readiness the more than $3,000,000,000 worth of military and naval bases in the Islands, the members of this House Armed Services sub-committee said informally today.

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Mexico City, November 30.—In a strongly worded speech before the forty-nation administrative and external relations commission of the United Nations Economic and Social Council, Philippine delegate Teodoro Evangelista criticized the geographical distribution of the secretariat personnel.

Mr. Evangelista declared that Filipinos find it difficult to understand why out of 600 UNESCO staff members only one is a Filipino. He demanded immediate correction of this inequitable distribution, reminding the commission that the Malayan race has a culture of its own, totally distinct from Chinese and Indian cultures.

Washington, December 3 (UP).—Construction of the super-secret ground for test-firing new types of atomic weapons has begun on remote Eniwetok Atool in the Mid-Pacific Ocean, the Atomic Energy Commission announced.

The native inhabitants, numbering about 145 will be evacuated from the tiny ring of coral islands and all outsiders will be barred from the huge outdoor laboratory in which the armed forces will conduct continuing "experiments with peaceful as well as military atomic devices."

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Paris, December 5 (UP).—French Morrocan troops fought 2,000 riotous strikers for the Nice Central post office, and police clashed with frenzied, communist led mobs in approximately 12 towns, with casualties listed as two killed and 50 seriously wounded in yesterday's unrest.

Two strikers were killed and 15 persons, including a police inspector, were injured critically when a mob of 2,000 led by Communist deputy Maurice Michel and several Communist municipal councilmen seized the railroad station at Valenca.

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Jerusalem, December 9 (AP).—Blood dripped on the Holy Land today as a wave of terror, marked by stabbings, gunfire and bomb throwing, claimed additional lives in turbulent Palestine Saturday night.

This spreading new destruction and a Jewish underground organization, announced that it was prepared to fight the Arabs, added to the growing fear of a Holy War.

Irgun Zvai Leumi, the extremist Jewish underground organization, announced it was prepared to destroy "Arab murderers" and set up "security cordons around vital Jewish towns and settlements."

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Jerusalem, December 10 (UP).—British authorities reported that the Jewish Haganah defense Army killed 70 Arabs and wounded 100 other in a counter-attack in the bloodsoaked battleground between Tel Aviv and Jaffa.

The sensationally heavy Arab casualties nearly doubled the death toll in the communal fighting, which broke out after the United Nations voted 10 days ago to partition Palestine.

British sources said modern arms were carried by several hundred Arabs which attacked the Salame quarter of Tel Aviv and the Jews were struck by panic as the Arabs set fire to three huts. But the Haganah rushed up reinforcements in taxi cabs, buses, automobiles and trucks and drove the Arabs back. They said that the battle also caused the lives of 12 Jews and three Britons.

Paris, December 8 (*UP*).—Paris Bus and subway workers stayed on the job today in defiance of a new union strike call, giving fresh momentum to what was rapidly turning into a victory of Premier Schuman's government over labor's communist leaders.

Civil servants who also were scheduled to go out today, paid little head to stoppage instructions from their union.

These new defections were part of the back-to-work movement spreading throughout France and strengthened the government's hand in attempting to negotiate a settlement of the labor conflict.

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Paris, December 10 (*UP*).—The French government today refused to accept a Soviet note breaking off economic negotiations and throwing the French repatriation mission out of Russia.

In a full cabinet meeting, Premier Robert Schuman and his ministers agreed unanimously to instruct the French *charge d'affaires* in Moscow, Pierre Charpentier, to take the note back to the Soviet foreign minister and to explain that the French government cannot accept it.

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Tokyo, December 10 (*Reuter*).—The Headquarters of General Douglas MacArthur, Supreme Allied Commander in the Pacific, have completed negotiations for Japan and Korea a total of 135,000 short tons of the current crop of Philippine sugar intended for export quota.

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London, December 16 (*UP*).—Soviet Foreign Minister Molotov left for Moscow early Tuesday, less than 24 hours after the Council of Foreign Ministers broke up in a bitter and complete deadlock.

Molotov, among whose last words were accusations that the United States had come here in bad faith with an intention to break up the conference and split Germany in two, left without any formalities.

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New York, December 18 (*UP*).—Dr. Eusebio Y. Garcia, senior malariologist in the medical research clinic at Biñan, Laguna, Philippines, was awarded a ₱400 prize by the New York Academy of Sciences for his report on malaria.

Garcia reported the successful use of a germ that causes lockjaw in the treatment of malaria.

Havana, December 19 (UP).—Emilio Abello, Philippine delegate to the United Nations trade conference here, told the United Press that he was delighted over President Truman's reassurance that the United States would never abandon Philippine trade preferences.

"I always thought that was the American attitude," Abello said.

The American delegation at this conference always supported our belief that the United States never abandoned us in our claim for trade preferences.

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Washington, December 20 (UP).—President Truman urged recovery aid for Far East—especially mentioning China as he unfolded his $17,000,000,000 request for the Marshall Plan to reconstruct western Europe.

He promised he would present to Congress a program for China's recovery during the next session, starting in January.

The President said, "While our present efforts must be devoted primarily to western Europe, as the most important area in the world at this time for the future of peace, we also have special concern for the war-torn areas of Asia."

A. CANCILLER

LIST OF PUBLICATIONS RECEIVED

(As of November-December 1947)

1. Análisis Mecánico de Tierras.—*Jesús Aguirre Andrés.*
2. Apicultura (Nociones elementales).—*Narciso José de Liñan Heredía.*
3. Abonos.—*Francisco Uranga Galdiano.*
4. Arquias de Instituto Biológico, Vol. 4, 1946, Sao Paulo, Brazil.
5. Agricultural Situation, Oct. 1947, Vol. 31 No. 10.
6. Adaptations and Comparative anatomy of the locomotor apparatus of New World vultures.—*Fisher.*
7. Aumentando A. Eficiencia Na Extincao de Sanveiros—Novembro 1944, No. 1 (Notas Agrícolas).
8. Culture Diseases and Pests of the box tree.—Farmers Bul. No. 1855—(U. S. Department of Agriculture).
9. Cartilla de la Almazara.—*J. Miguel Ortega Nieto.*
10. Du Pont Magazine.
11. Dry Calf Starters for dairy calves (Norton & Eaton) (Cornell University).
12. Defensa Azucarera.—*José Ch. Ramírez.*
13. Effects of Sprays of Lime Sulfur and of Elemental Sulfur on apple in relation to yield.—*Mills (Cornell University).*
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The best portion of a man's life is his little nameless, unremembered acts of kindness.

—WILLIAM WORDSWORTH

Best habits are always the worthwhile ones.

—JOHN NEWTON BAKER

Envy is often an acknowledgment of inferiority.

ORGANIZATION OF THE DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES

[As of January, 1949.]

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Secretary of Agriculture and Natural Resources

Hon. JOSE S. CAMUS
Undersecretary of Agriculture and Natural Resources

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