FPRI Highlights

CAIRO . . . In Retrospect

The technical conference on pulp and paper development in Africa and the Near East sponsored by FAO of the United Nations and the Economic Commission for Africa, held recently in Cairo, UAR, had Director Manuel R. Monsalud of the FPRI as the lone Filipino delegate. Director Monsalud presented a paper entitled, "Fiber characteristics of Philippine bamboos."

Monsalud observed that the UAR and other countries in North Africa are deficient in broad-leaved and coniferous wood species. They do not have bamboos. They resort to whatever cellulosic raw materials available in their respective regions such as reeds, esparto grass, rice straw and sugar cane bagasse for pulp and paper materials. The papyrus also exists in some parts of Egypt, but this is not a good material for paper. Esparto grass is, but the feasibility and cost of harvesting render its use as raw material for pulp and paper uneconomical.

There is a big demand for quick-growing species, according to Monsalud. To help solve this problem, Director Monsalud suggested the trial growing of Kaatoan bangkal, in regions that may be suitable to it, since Kaatoan bangkal has been found to be very fast growing and produces wood that is good for pulping, bakya-making and for veneer and plywood manufacture and possibly for poles.

In one of the guided tours, Director Monsalud particularly noted the two adjacent mills located in the city of Edfu, the AL NASR Sugar Mills and the Edfu Pulp Mills. The sugar factory mills produces 4,000 tons of sugar cane daily and produces about 400 tons of washed sugar.

The bagasse is conveyed to the pulp mill also owned by the sugar company which produces 18,000 tons of unbleached bagasse pulp per year. The Pandis soda process is used in converting bagasse into unbleached pulp used by the paper mills in other places in the Arab Republic.

Another interesting feature the Director observed is the Aswan High Dam Project costing approximately U.S. $954,500,000. Once constructed, this dam will provide an additional 14.5 million cubic meters of irrigation water annually, thereby increasing the cultivated area in UAR, giving an additional annual gross income of U.S. $538,200,000 and will generate an annual electric energy of 10 billion KWH to be used for industrial and agricultural development of Egypt.

The Arabs, according to Monsalud are highly nationalistic. They would exhaust their local materials and products before resorting to use of imported goods. Only a complete deficiency of local materials would drage them to use imported goods, which rarely happens. . . .

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FPRI-PMAP PLYWOOD SEMINAR

The joint efforts of the Forest Products Research Institute and the Plywood Manufacturers' Association of the Philippines is conducting a two-week plywood seminar from May 24-June 5, 1965, in Davao City, consolidated their efforts to solve problems confronting the plywood industry, such as keen competition with our Asian neighbors in American markets, production of higher grade export plywood, lack of best technical know-how in plywood processing and inadequate insight into the interrelations between management and labor.

Discussions were centered on pertinent technical aspects of plywood processing — from log preparation to evaluation of finished product, allied points of interest such as glues and gluing, pre-finishing, shimming methods which can increase the percentage of exportable plywood and new trends in plywood manufacture to increase production and minimize manpower and cost.

Forty-four participants from the supervisory level representing 15 plywood companies attended. The informal conduct of the seminar exposed the participants to free exchange of ideas with lecturers affording them the best opportunity to raise questions and voice opinions leading to a solution to some common plywood processing problems.

The panel of resource persons and discussants is composed of FPRI's T. M. Lindayen, M. L. Garcia, D. G. Faustino, R. P. Saraos, R. C. Eala, A. P. Bati, E. Jaranilla, P. M. Manzo, I. M. Laroya and F. V. Oamar, For. Gregorio Santos of BF, Mr.

Atilano Villaos of L. S. Sarmiento & Co., Carl Ottiger of Warner Barnes & Co. Ltd., Prof. Armando Villaflor of UPCF, Thomas Norman of Borden Chemicals (Phil.) Inc., Benjamin Misa of Adhesives and Binders, Resin Inc., Gabriel Rillorta and Mariano Bordon of Sta. Clara Lumber Co., Inc., Moran Batac and Dominador Policarpio, Jr. of the Dept. of Labor and Rey Sinense of U.S. Industries (Phil.) Inc.

PMAP President Aurelio Lagman, in his welcome address, appealed to the participants to meet the challenge before them if the plywood is to survive. He stressed that the major problems in plywood manufacturing at present are in the recovery from raw materials input, quality control and in plant management and supervision.

Director Monsalud of the FPRI offered the services of the Institute to help solve some of the technical problems that beset the plywood industry. He underscored the role of research in solving the many problems that the industry faces and brought to the attention of the participants the research projects being undertaken by the Institute along studies on veneer and plywood processing.

The guided tour and plant visits were very much appreciated by the participants for these gave them a chance to see actual demonstrations on plywood processing in some more technologically advanced plants.

The seminar was a success and the participants unanimously expressed a desire to have a seminar along this line regularly to help bring up the industry's operation to the technological level with that of the other countries.

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FPRI ARTICLES WIN TOP AWARDS

FPRI articles entitled, "Pulping and papermaking of a naturally occurring mixtures of Philippine hardwoods," by P. B. Bawagan and J. O. Escolano "Process of preparing an adhesive composition" by L. A. Ynalvez copped the second and third prizes, respectively, in the first Graduate Research Awards sponsored recently by the Chemical Society of the Philippines.

"Quality control in lumber thru stress-grading" by TPED's Dr. A. N. Ramos, Jr. and S. B. Bellosillo was awarded first honorable mention by the Philippine Association of Civil Engineers. The article was cited for "useful information, interest aroused, originality of presentation and invaluable contribution made in the field of engineering design in timber in the Philippines."

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INDUSTRY ASSISTANCE AND COOPERATIVE SCHEME

As a research servicing agency, the Forest Products Research Institute has consistently strived to bring to the wood-using industry and the general public, thru its technologists sent on field trips on cooperative work and industry assistance mission the information accumulated by its researchers to help vitalize the industrial development program of the government.

•A study on drying of lumber with the use of solar energy was undertaken by the wood seasoning section with the Inter-Island Construction Corporation. Preliminary results revealed that moisture loss is higher by 7 to 10 percent in samples dried inside the drier than the end-matched samples dried outside. . . .

•Pre-drying of lumber was undertaken with the Nasipit Lumber Company in Agusan using an experimental low temperature electrically-heated dry kiln donated to the Institute by Carlton Smith Industries, Memphis, Tennessee. About 2,000 board feet of 1-inch thick and 6 ft. long boards consisting mostly of yakal, guijo, malugai, and pahutan were used in the first run. Drying degrades that developed during the early stage of drying are surface checking on plainsawn yakal board and collapse on quartersawn malugai boards. It was observed that numerous end checks deveoped on both surfaces of the yakal sample boards on the third day of drying. It was also observed that collapse was present on quartersawn sample boards of malugai during the third day.

•Director Monsalud pledged to aid the yunot rope makers of Tanauan, Batangas and Lumban, Laguna by having some improved mechanical gadgets fabricated in the Institute to increase their production and yield better quality rope at lower cost. The improved mechanical gadgets proposed consisted of bicycle accessories designed for durability, higher efficiency and ease in production. This move was dictated by the report received by the Director from technologists who surveyed the industry, that at present the rope makers are still using antiquated gadgets posing a hindrance to the progress of the industry. . . .

•Wood preservation specialists conducted a survey of the causes of failure of railway ties in Iloilo. They found that spikes killing and rail-seat deterioration or combination of both are the main causes of failure. The Philippine Railway Company in Iloilo generally uses molave, ipil, yakal and tindalo for ties. Like the PNR this company experiences an acute shortage of molave ties.

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The SUNY people felt that most of their objectives have been fairly achieved and that there is no need to further extend the contract. However, Dean Hardy L. Shirley of the SUNY College of Forestry commented that th U.P. College of Forestry has not yet reached a stage in its development from which it can continue to grow and prosper without further assistance. He said it has not become truly viable and self-regenerating institution. "The College will not be truly self-perpetuating until it is prepared to educate its own faculty, its own research workers, and the top-ranking administration forester in government and industry,' Shirley commented.

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FIVE UPCF FACULTY ARE SLATED FOR U.S.

Four professors and one instructor of the College of Forestry are slated to go to U.S. this year to pursue their graduate studies. They are Professors Domingo V. Jacalne, Feliberto Pollisco, Juanito D. Lamanilao, Enriquito C. de Guzman and Mr. Romulo Casilla, Pollisco, Lamanilao, and De Guzman will get their Ph.D.'s while Jacalne and Casilla will pursue their M.S. degrees. However, the date of their departure is not yet definite. They are still busy securing their necessary papers and undergoing thorough physical examinations.

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FPRI HIGHLIGHTS . . .

(*Continued from page 82*)

*Engrs. R. J. Miciano and M. B. Avanzado of the timber physics and engineering division on their survey of the Aras-Asan Timber Co. in Basay, Samar in connection with their study on rapid segregation of sinker logs, found the company beset with the problem of recovering sinker logs constituting approximately 35 percent of logs cut and towed to their shipyard for export. Logs for export are usually towed through the winding Basey river to the shipyard, about 15-20 kilometers from the compound where the logs are dumped. The duo theorized that magnitude of sinker logs may have resulted from the geographical location of the place being in the typhoon belt and trees were exposed to lateral stresses thus producing wood of high density or that the trees in the region may contain excessive moisture. Samples were cut from sinker red lauan for specific gravity, moisture content and wood structure studies. They believe that findings in this study would help solve the problems of sinker logs. . . .

*In a survey made on the abundance of lupi in Catanduanes, FPRI's I. T. Zamuco and E. C. Amio with Engr. E. Serra of NIST found that approximately 1/3 of the total land area of the province is covered with lupi; greenweight of culms without leaves available in the area is estimated to be about 1.5 million tons. This plant has been found suitable for pulp and paper. The team recommended the establishment of sample plots to determine growth maturity, cutting cycle, etc. . . .

*Technologists J. A. Meniado and M. Magsanoc of the wood technology division demonstrated the effective methods and techniques of extracting Kaatoan bangkal seeds in their visit in Zamboanga and gave advice on seed storage, germination and transplanting techniques and also on damping off diseases to technical personnel of the mills visited. . . .

*The molasses-carbide dust binder discovered through cooperation work between the FPRI and the Maria Cristina Chemical Industries has proven to be very effective and economical for briquettes production. The Maria Cristina Chemical Industries, whose charcoal and briquettes production rates 1.5 tons per hours, uses this binder and derives benefit from it by reducing the cost of production and by eliminating the drying of briquettes which is otherwise indispensable for commonly used binders. . . .