

Sixth International Grassland Congress

By VALENTIN SAJOR
Sr. Forester & Research Coordinator
Bureau of Forestry, Manila, Philippines
(Philippine Official Delegate)

The Sixth International Grassland Congress, sponsored jointly by the Government of the United States of America and the Food and Agriculture Organization of the United Nations (FAO) was held August 17 through August 23, 1952, at the Pennsylvania State College, State College, Pennsylvania, with around 1,500 delegates representing 53 countries. About 15,000 people viewed the exhibits which included educational materials on the more efficient use of grassland and modern labor-saving implements and equipment.

In addition to the program of field activities, special events, and general sessions, there were also sessions of at least three in each of the 12 Sections to which the delegates and participants were grouped:

- A. Genetics and breeding;
- B. Improvement and management of pastures, meadows and turf;
- C. Improvement and management of range lands;
- D. Ecology and physiology of grasslands;
- E. Soil Management and fertilization;
- F. Seed production and distribution;
- G. Soil and water conservation;
- H. Harvesting and preservation of forage;
- I. Use of forage in livestock feeding;
- J. Machinery;
- K. Experimental procedures in grassland research; and
- L. Improvement and management of tropical grasslands.

Papers presented and discussed by delegates and participants from many countries of the world, disclosed the most advanced

scientific approaches to grassland farming. Delegates were provided with abstracts of the papers in English, French and Spanish, the official languages of the Congress. The full proceedings will be published soon for distribution to registered participants.

Following the formal sessions of the Congress, around 200 delegates from countries other than the United States of America took part in four tours to various regions visiting farms, ranches and experiment stations where modern and efficient grassland practices are being used. The tours which were integral parts of the Congress and lasted from August 24 to September 7, 1952 covered four areas of the United States namely, I. Widwestern, II. Northeastern, III. Southern, and IV. Western.

In each of the tour-area and in every section of the United States of America visited, there are outstanding examples of achievements in grassland farming. The undersigned as a Philippine delegate presented and read two technical papers entitled, "Forest Grazing in the Philippines" authored by Forestry Director Florencio Tamesis and himself and "Grasses in the Philippines" prepared by him and Forester Teofilo A. Santos. These papers were read under Section "L" therein "Improvement and management of tropical grasslands" group.

A delegate was free to attend as many as he could Sectional or General Sessions and field activities and special events or meetings in addition to the three sessions under his particular section. In my case I was able to attend some meetings, field trips,

special events and sessions under Sections B, C, and K therein in addition to those under the general sessions which consisted—Opening, Plenary and Summary sessions, Grassland for Recreation, Workshop Reporting and Tours Briefing.

As to the tours, I joined the Mid-Western Group (1) which covered experimental grassland work, grassland demonstration and local points of scientific interest within the State of Ohio, Indiana, Illinois, Missouri, Iowa and Wisconsin, besides of course those in Pennsylvania. At Madison, Wisconsin, we visited the Forest Products Laboratory, wherein Professor Eugenio de la Cruz, Chief, Division of Forest Investigation was then making observation thereat. With Professor de la Cruz, I was also able to visit the reforestation projects in Central Wisconsin between Marshfield and the famous Wisconsin Dales.

To implement further what we discussed during the Congress at Pennsylvania State College, and after our collective touring in the Mid-Western States, I visited Florida's Tropical Gardens including Key West, the Southernmost U.S. City which is a distance of around 175 miles from Miami Beach, Florida along beautiful parks and highways. Likewise, I implemented our grassland deliberations by visiting the various parks in Washington D.C. particularly those around the Capitol Hill and the White House as well as New York's play grounds and the historical plaza "pasture" and famous Yale's campus in New Haven, Connecticut.

At this juncture, it may be stated that 25 years ago, I received my Master's Degree of Forestry from Yale University, (M.F. '27 Yale), after receiving my B.S.F. from the University of Idaho in 1926. Among the three outstanding changes I noticed for the last quarter-century in the United States are the following:

1. Television which was entirely absent then in 1927;

2. Planes including "piper cubs" also barely known then; and

3. "Man-made forest" or forest plantations, likewise, were just being started 25 years ago.

After 40 days in the States, I spent 10 days in Europe visiting among others the famous Hyde and St. James Parks in London, Retiro Botanical Garden established in 1871 in Madrid, and the Vatican Park with Castle Gandolfo Garden in Rome. A period of another 10 days was spent during travels mostly by plane. All in all it was exactly two months trip "around-the-world," August 13, to October 13, 1952.

MIDWESTERN TOUR

From the standpoint of acreage and production this is the most important general farming area of the United States. Emphasis is on production of feed crops for supporting extensive livestock feeding enterprises. The southern part of the region embracing the states of Indiana, Illinois, Missouri and Iowa is the corn belt. Here corn, soybeans, and cereal grains are emphasized. Short 3 to 5 year—rotations predominate. Permanent pastures are relegated to rough areas unsuited to cultivated crop production. Hay crops are grown in the rotation primarily for soil improvement and also for feed production. Improved pastures are finding increasing use in the longer rotations. In the northern part of the region, particularly Minnesota, Wisconsin, and Michigan, and in eastern Ohio, hay and pasture production predominate. Dairy production in said northern part of the region and beef cattle fattening in feed lots and on pasture in the southern part are the principal livestock enterprises.

Winter feed is required throughout the region. Most forage is now preserved as hay, but use of grass silage is increasing rapidly.

Geographical Description.—The Midwestern or Corn Belt and Lake states include Ohio, Indiana, Michigan, Illinois, Wisconsin, Minnesota, Iowa, Missouri and the eastern portions of South Dakota, Nebraska and

Kansas. Our group toured all except Michigan, Minnesota and the last three mentioned states.

The annual precipitation tends to increase from north to south and from west to east within the region, ranging from approximately 25 to 40 inches. Average temperatures in January vary from nearly 6° in the extreme northern part of Minnesota to about 35° in southern Missouri. Average temperatures in July in northern Minnesota are about 65°, compared to the average in southern Missouri of approximately 80°. The average number of days without killing frosts is 80 to 180 days in northern districts and 140 to 210 days farther south.

Farming in the Corn Belt and Lake states has been devoted largely to producing grains for supporting an extensive livestock feeding enterprises. Most of the crops are used to produce dairy and beef cattle, sheep, and swine. Minnesota, Wisconsin, Michigan and eastern Ohio are included in the hay and dairy region of the United States. Southwestern Minnesota, Iowa, Missouri, Illinois, Indiana, and western Ohio are in the Corn Belt. The combined acreages of tame hay and pasturage exceed those of corn and small grains in Indiana, Michigan, Missouri, Ohio, and Wisconsin, and approximately those of corn and small grains in Illinois, Iowa and Minnesota. Dairying is the leading farm enterprises in the northern states of the region. Meat production is of great commercial importance in the southern part. The deep, highly fertile prairie soils characteristic of much of this area are cropped more intensively than the forest soils of the dairy region.

Grassland Characteristics.—Grasslands of this region are producers of dairy and beef cattle, sheep and swine. Kentucky Bluegrass (*Poa pratensis*) and white clover (*Trifolium repens*) predominate in natural pastures. Many of the seeded or improved pastures are grown in rotation with grain crops on an intensive basis. Principal forage species in improved grasslands include bromegrass

(*Bromus inermis*), timothy (*Phleum pratense*), orchardgrass (*Dactylis glomerata*), alfalfa (*Medicago sativa*), red clover (*Trifolium pratense*) Ladino clover (*Trifolium repens*, var. Ladino) and birds-foot trefoil (*Lotus corniculatus*). Some of the better pastures in this region will support more than one animal unit per acre whereas others often require as much as 3 acres. In the Philippines, 1 hectare or 2.47 acres will support one animal. Large quantities of forage are preserved each year in the form of hay silage. Silage preservation is becoming increasingly popular.

Our Tour Itinerary

Sunday, August 24. Left State College, Pennsylvania at exactly 12:00 noon. Visited the famous experimental Firestone Farms near Columbiana, Ohio, located on Highway 14 running between Cleveland and Pittsburg. Many conservation projects are being carried on here like pasture improvement, soil conservation, reforestation, etc. Dinner at Columbiana, sponsored by the Firestone outfit with pictures-taking followed by whole-sale speech-making by our Midwestern Tour Group of 27 members representing 17 countries. Traveled 228 miles today via Greyhound Bus No. 5172. Over-nighted at Mt. Union College, Alliance, Ohio, in their main building.

Monday, August 25. Visited Agricultural Experiment Station at Wooster, Ohio, where beef and dairy pasture management studies are under way including the Secret Arboretum having over 600 species from many parts of the world. Stopped at Linder Brothers Farm, Norwalk, Ohio, and Harvey Born Farm, Birmingham, Ohio, to see a modern (horizontal) grass silage and general grass farming operations. Visited also the plant of the Northern Ohio Breeders Cooperative Association. Traveled 171 miles. Over-nighted at Shawmon Hotel, Tiffin, Ohio.

Tuesday, August 26. En route to Hartford, Indiana, stopping at the Miller-Purdue Farm of the Indiana Agricultural Experiment Sta-

tion where extensive studies in pasture renovation and comparisons of various mixtures for beef cattle grazing are in progress. Lunch at Mitchell Farms, Windfall, Indiana and dinner and meeting at Chestnut Room, Purdue Memorial Unions Building, Purdue University at Lafayette, Indiana. Over-nighted at their Iroquois dormitory. Traveled 261 miles.

Wednesday, August 27. Visited the new Science Building of Purdue University re-soil, forage investigations including grass and legume, breeding and dairy and swine pasture work of Purdue University known as Indiana Agricultural Experiment Station. Stopped at Leron Clark Farm at Homer, Illinois, where beef cattle pastures have been developed on \$600 per acre land. At Urbana, Illinois, visited the "Morrow Plots" to observe rotation plots of corn and hay crops which are now about 70 years old. Dinner and over-nighted at Monticello, Illinois in the famous "Allerton Park" wherein slide-show followed the usual after-dinner-get-together and speech-making among the members of our Touring Group. Traveled 156 miles.

Thursday, August 28. Visited Experiment Station at Dixon Springs, Illinois, where poor eroded land has been reclaimed and now supports a good grass-livestock economy producing 400 to 500 pounds of beef per acre. Lunch at the Glendale Lake c/o State Forest Service and dinner at the lodge of Giant City State Park Cabins. Over-nighted at Carbondale, Illinois. Traveled 346 miles, the longest distance traveled in a day during our Midwestern Tour.

Friday, August 29. Visited stockyards, brewery, fertilizer and packing plants in East St. Louis. Special individual visit to the Missouri-Botanic Garden known as Shaw's Garden. Slide-show by the Monsanto Chemical Company, Inc. re "Krilium"—a soil conditioner. Over-nighted in St. Louis, Missouri, at De Soto Hotel. Traveled 102 miles.

Saturday, August 30. Observed trefoil, lespedoza, and tall fescue breeding projects and pasture management work under way at University of Missouri including "Run-off" experiments in cooperation with the Soil Conservation Office. Witnessed also County Fair particularly Livestock Show and "Horse Shows." Nighted at Daniel Boone Hotel, Columbia, Missouri. Traveled 140 miles.

Sunday, August 31. Spent forenoon at Columbia with opportunity to attend church service. In the afternoon en route to Ottumua, Iowa. Over-nighted thereat and another "get-together"—lecture at this time in Ballingal Hotel to members of the Widwestern group consisting of 27 members representing 17 countries. Traveled 153 miles.

Monday, September 1. Visited Walter Caldwell farm near Prairie City, Iowa, en route to Ames, Iowa. Visited forage work at Iowa State College at Ames, Iowa, including orchardgrass, bromegrass, trefoil and lespedoza breeding work as well as some phases of pasture management. The North Central Plant Introduction Station therein also was visited. Over-nighted in Cedar Falls, Iowa, wherein the local Chamber of Commerce together with the Clay Equipment gave a welcome-dinner and projection show. Lodged at the Sear Hall, State Teachers College. Traveled 230 miles.

Tuesday, September 2. Visited Howard County Experimental Farm to observe forage experiment in progress. Lunch at the Decorah (The Switzerland of Iowa) under the auspices of the local Chamber of Commerce including the Mayor of Decorah. Visited Farmco Fertiliser plant at Prairie du Chien, Wisconsin, and examples of "strip farm" and crop rotation at Montfort, Wisconsin. Over-nighted in Madison, Wisconsin, stopping at Belmont Hotel. Traveled 272 miles. A picture of the group while at Montfort was published in the Telegraph-Herald, Dubuque, Iowa, September 3, 1952 issue page 4.

Wednesday, Sept. 3. Visited the "Bob-

boach" new building on dairy and experimental farms of the University of Wisconsin observing experimental farms of the University of Wisconsin observing research on breeding, product, management, and utilization of grassland copra and farm mechanization including "electrified farming." Over-nighted in Madison, Wisconsin. Members of the Midwestern Tour Group were special guests of Dr. and Mrs. Wilbur Carlson. Dr. Carlson was our Chairman, General Tours Committee of the 6th International Grassland Congress. Traveled 48 miles only today.

Thursday, September 4. Visited the Madison Forest Products Laboratory and met Forester Eugenio de la Cruz then on his 6-month U.S. training program under MSA auspices. In the afternoon, visited Dairyland Cooperative Dairy and soil plots en route to Juneau, Pabst Farm at Ocosnomoc, Wisconsin to see an outstanding Holstein herd and excellent grassland farm. Mr. and Mrs. Pabst gave a dinner in their farm residence followed by speech-making. Over-nighted in Madison, Wisconsin in the same hotel. Traveled 125 miles.

MANGROVE . . .

(Continued from page 35)

trol projects and to protect public interests.

As stated above most of these mangrove swamps (298.926 hectares) applied for and occupied under licenses or permits for fishponds, firewood and other forest uses are mainly located in Luzon and Visayas, while the remaining vacant areas of about 144,474 hectares are located in Zamboanga, Sulu, Surigao, Palawan, etc. These need to be examined to determine their status, use and suitability for fishpond, firewood and other forest uses and for protection purposes.

An allotment of ₱150,000 will be needed to examine and zonify these vacant areas requiring 50 forest officers to do the work in three years.

Friday, September 5. Packing my things. Visited the J. I. Cane Manufacturing Company Plant at Racine, Wisconsin. Luncheon offered by them followed also by speech-making as usual. In this case particularly a closing one. Tour concluded in Chicago, Illinois, arriving at 6:15 P.M. stopping at Morrison Hotel at Corner Clark and Madison. Traveled 178 miles.

Saturday, September 6. Short meeting of our Widwestern Tour Group of 27 members representing 17 countries. Tour practically terminated this date here in the windy city of Chicago, Illinois. Some left immediately after lunch today.

Sunday, September 7. Packing things and fixing various notes at random between sight-seeing of Chicago parks, lawns, exhibits, campuses, etc. Still nighted at the same Hotel Morrison, Corner of Clark and Madison, Chicago, Illinois. More members of our group left today as our trip having been terminated yesterday.

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