

# 50 Years of Partnership

*Being the largest program in Paper Science & Engineering in the US doesn't just happen. It takes men and women with a vision. It also takes champions to support the cause. This year celebrates the 50th Anniversary of the Pulp & Paper Program and the Foundation at NC State.*

— By MICHAEL KOCUREK, DEPT. HEAD FOR WOOD & PAPER SCIENCE, NORTH CAROLINA STATE UNIVERSITY

## Founding of the Program

Papermaking was an art in 1954, but a scientific renaissance was beginning. A renaissance led by wood chemists, who were discovering the chemistry of lignin and cellulose; and paper physicists who were looking at paper as a material with fibers and bonds. The southern U.S. paper industry was developing the full potential of southern pine trees and creating an industry that would rival and eventually surpass the great paper domains of the Midwest, Northeast, and West.

In 1952, Dean R. J. Preston of the School of Forestry at NC State approached leaders of the industry, with the aid of Mr. Reuben B. Robertson, Sr., Chairman of the Board of Champion Paper and Fiber Company, to present their case for a new Pulp and Paper curriculum, and for the necessity of industry's support. During the Annual Paper Convention in New York City, Mr. Robertson proposed to a number of industrial executives to support the establishment of the program. Mr. Larry Riegel, Mr. W.E. Bold, Mr. George Mead, Mr. Hugh Camp, and Mr. Gunnar Nicholson committed themselves and their companies to financially supporting a pulp and paper program at North Carolina State College of Forestry. Additionally, Mr. Robertson, supported by his fellow paper executives, was instrumental in persuading the Legislature of the State of North Carolina to approve an appropriation of \$200,000 for a laboratory and teaching facility to house the embryo pulp and paper program.

A representation was made to the Southern Regional Educational Board concerning the establishment of this new curricular program. An agreement was reached with the Board which provided that North Carolina State University would establish an undergraduate program in pulp and paper science and technology to serve the entire South. The purpose of this agreement was to mini-



The Robertson Laboratory in 1957. The laboratory was named after Reuben B. Robertson, Sr., who in 1952 spearheaded a proposal to industry leaders for the implementation of a pulp and paper program at NCSU. Robertson made his pitch at the annual Paper Week convention in New York.

mize the dilution of support and proliferation of poorly conceived programs that might be established by other colleges and universities. In 1954, the program recruited and officially began instruction of students.



C. Earl Libby was instrumental in developing an industrially oriented curriculum at NCSU's pulp and paper program, which was initiated in 1954.]

C. Earl Libby was selected to head the new pulp and paper program and to develop an industrially oriented curriculum. Libby, a native of Benton, Maine, graduated from the University of Maine (B.S.) in 1916. During the next four years, Libby was active in a number of chemical pulp operations that supported the gunpowder industry of World War I. In 1932, he became head of the Department of Pulp and Paper Technology at

Syracuse and continued to lead this outstanding program until 1952. Additionally, he was responsible for the establishment of Empire State Paper Research Associates, Inc. (ESPRI), an organization initially devoted to improving

The Curriculum Committee in 1966. The committee was responsible for adapting the pulp and paper program to meet the evolving science and engineering needs of the industry.



the utilization of hardwoods in the pulp and paper industry of New York State. He received the TAPPI Gold Medal in 1962, recognizing his contribution as a leader in pulp and paper education. Libby's long contact with education programs in the paper industry made him an outstanding selection to organize the North Carolina State program. In 1954, Professor Libby contacted Mr. R.G. Hitchings, a former colleague in the program of pulp and paper instruction at the New York State College of Forestry and asked him to come to North Carolina to assist him in instruction of the two students registered in pulp and paper for the fall 1955 semester. Additionally, Hitchings responsibilities included overseeing the purchasing and installation of equipment for the new pulp and paper laboratory that was to be undertaken. Hitchings retired in 1987, after 33 years of service.

Over the next 25 years, annual enrollment grew to over 140 students. Support from the Pulp & Paper Foundation grew to \$160,000. In 1972 the first endowed scholarship was established in the name of William E. Caldwell, an executive with the St. Regis Paper Company. The curriculum of the program continued to adapt to meet the science and engineering needs of the industry. Increased emphasis on chemical engineering fundamentals led to a dual degree in Paper Technology and Chemical Engineering, an option for students that still exists today and is unique in the U.S.

### **The Foundation is Established**

In an effort to strengthen the industrial support of the many programs of the emerging School of Forestry, a series of advisory committees were appointed for the several programs of the School and were asked to meet in Raleigh on November 6, 1952. Representatives of the

corporations who initially gave their support to Mr. Robertson in the early part of the year were present as the Pulp and Paper Policy and Technical Advisory Committee. These men met in several subcommittees concerned with student enrollment, building and laboratory facilities, and curriculum. As a result of their recommendations, it was felt a broader industrial base would be necessary to support scholarships for outstanding high school graduates. Based on the recommendations of the industrial contacts of Dean Preston and Professor Libby, invitations to join the support of the program were sent to the majority of the pulp and paper industry in the South. As a result of this meeting, the Pulp and Paper Advisory Committee sought the incorporation of the Pulp and Paper Foundation, Inc. The meeting of the incorporators was held on February 4, 1955 and Mr. E.J. Gaynor, III of the Brunswick Pulp and Paper Company was elected President of the Corporation. A budget was proposed and accepted by the group with a total of \$25,000 appropriated. This budget included funds for salaries and salary supplements, undergraduate student scholarships, a graduate fellowship, and travel funds.

In the initial development of the Pulp and Paper Foundation, gifts of approximately \$100,000 worth of papermaking equipment were obtained from companies interested in the Pulp and Paper Program, and \$25,000 was used from the initial appropriation for the laboratory building for the equipping of the laboratories.

### **The 50th Anniversary 1954-2004**

Where has the time gone? Fifty years later, 2004-05, the newly re-named, soon to be ABET engineering accredited Paper Science & Engineering program has 120

undergraduates, most of them dual degree Chemical Engineering majors, and 30 PhD and M.S. graduate students, making it the largest program in the U.S. The distance learning based Master Degree is the first in the U.S. The Faculty of eleven is the largest among peer institutions, and is a balance of young and senior teachers/scientists. The new Robertson laboratories, added in 1991 to the original building, provide a combined total of 50,000 sq. ft. for instruction, research, and technical service. The Foundation has 179 members, with an annual budget of \$604,000. There are 130 endowed scholarships, the largest number in any department at NCSU. The depth of loyalty of industry supporters and alumni is as strong as ever. There are a total of 1200 Alumni. Many have executive positions, and all have contributed to the industry. Today, it is difficult to visit a mill in the South that does not employ a graduate in Pulp & Paper from NC State. Hundreds of distinguished leaders of the Foundation, and 40 different faculty, have been part of the program over these past 50 years.

### The Centennial – 2054

Where are we going? What will the program look like when we celebrate our Centennial Anniversary in 2054-55? What are the drivers that will affect the program and industry? Mergers and global competition have impacted the industry in unprecedented ways, including the demand for B.S., M.S., and PhD graduates. What is our plan to maintain the best program to serve our current industry, and prepare graduates to lead the industry of tomorrow?

The vision to be the choice for education and research will keep NC State as the best program of its kind if we continue to be successful in meeting four objectives, which will drive our efforts and require industry and foundation support:

Recruit and graduate the best available students in sufficient numbers to meet the demand of industry. The greatest challenge to remaining a strong regional and national program is nonresident tuition. Scholarships are not able to keep pace, and major gifts will be needed to increase the endowment from \$7 million to \$25 million.

Continually review the curriculum, including professional development of the students, to keep the program relevant and highly competitive. Both the undergraduate and graduate programs are reviewed continuously and at



Robertson Labs - Home of the N.C. State Paper Science and Engineering Program.

annual faculty retreats. Industry and the Foundation Curriculum Committee are key partners. Emphasis on science and engineering fundamentals, professional skills, and intern/co-op experience remain cornerstone elements. The core program will continue to meet industry needs. New courses and/or options will be added to meet program and industry opportunities. Options exist in Engineering, Chemistry, Environmental Science, and Textiles Nonwovens. A new option in Forest Biomaterials is under examination.

Recruit the best faculty who are dedicated to teaching, in addition to being excellent researchers. We believe that the current faculty are the strongest group in the history of the program. The challenge is to provide space and resources to support their efforts.

In Research and Graduate Education, maintain traditional strengths in Wood Chemistry, Fiber Processing (Pulping, Bleaching), Recycling, and Papermaking. Plan a new research center in Forest Biomaterials and Biotechnology, involving several departments and colleges, the industry, and government.

We are on a pathway that joins the celebration of a successful past, with a vision to an equally successful future. ■