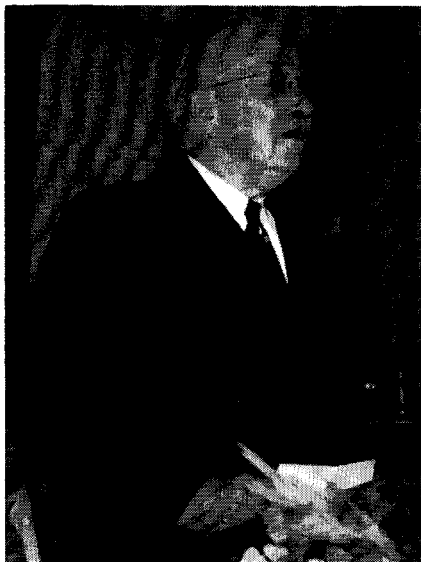


Large Segment of Population Still Poorly Nourished

CHICAGO.—This country is in an almost unbelievable position with a so-called surplus of food of high nutritive value and a population that is far below the economic and health level that could be reached if we had an adequate nutrition education program under way, Charles Glen King, scientific director of the Nutrition Foundation told the board of Trustees of the foundation here April 21.

Dr. King said that even today in the Northwest section of the country, for example, only one fourth of the people get adequate nutritional diets as recommended by modern specialists. The fact that through sound nutrition science has nearly eliminated rickets, scurvy, and pellagra, and is now making great progress in combating tooth decay, does not lessen the urgency of continued and wider education in nutrition, he said. Dr. King declared that a balanced diet for essentially all of our population is within

At the Nutrition Foundation's luncheon, University of Alabama president, O. C. Carmichael, lauded the foundation's fundamental research and education programs as of vital interest and direct value to public health and welfare



our grasp if we undertake the job of education in nutrition in a way commensurate with its importance.

O. C. Carmichael, president of the University of Alabama praised the foundation's research and educational programs. He said that the foundation is unique in American industry and among American institutions as its research is not "project" or *ad hoc* research, but is

basic research of direct value to public health and welfare. Dr. Carmichael recalled President Eisenhower's praise of the foundation during his term as president of Columbia when he complimented the foundation on having a program not only of research but also of education.

George A. Sloan, president of the foundation, which is wholly supported by the food industry, reported to the board that grants totaling \$3,172,000 have been made by the foundation for basic research in nutrition. These grants, he said, have gone to 75 universities and colleges.

Speakers Disagree on Effects of 1975 Population on Food Supply

WASHINGTON.—Must we prepare to tighten our belts or will we still have plenty to eat in 1975? Two views of the problem of population and food supply in the future were presented to the agricultural luncheon of the U. S. Chamber of Commerce which met here recently.

We'll have to tighten our belts according to Paul B. Sears, Yale University. He said that most geologists, biologists, and students of population seem to be gravely concerned about the future of the present economy of plenty in the U.S.

While our farm land is limited there appear to be no limits to the potential of population growth, and Dr. Sears pointed out that we have lowered the efficiency of our farm lands by poor conservation practices and at the same time we are increasing our demands for agricultural products.

Dr. Sears acknowledged that: "Scientists themselves are divided on the question as to whether or not we can maintain the economy of plenty for the indefinite future." Although technological advances may result in greater yields it is only at the expense of the land that these increases are made. He said that despite many of our advances in knowledge, the per acre yield of Ohio farmland was only being maintained with difficulty. The increased productions realized from hybrid seed corn are, according to Dr. Sears, only

being obtained at the expense of soil fertility.

As for the hope of technology providing artificial substitutes for agriculture, he takes an equally dim view. Here he sees that this "last promise of the bright new world" will mean an increasing dependence on highly specialized technology. Dr. Sears says that each complication in the food production chain increases our vulnerability to outside pressures, and he feels that we can expect stresses for a long time to come.

To point up his theme, Dr. Sears said: "If we continue to exploit the land and disrupt the great cycles of water energy and nutrient minerals under conditions of increasing consumption and population, some genius with a slide rule may see how to maintain the American way of life. I do not."

A more optimistic outlook was presented by Charles E. Kellogg of the USDA. Dr. Kellogg did not brandish a slide rule before the luncheon guests but he discussed some technological advances which he feels will solve our future problems of food supply.

He said that the farmers of the nation now have almost 400 million acres of land planted to crops, but that if the need arises this could be increased to 600 million acres by careful planning and shifting land use. He believes that land supply will not be a limiting factor in future food production.

Dr. Kellogg pointed out that farm production is increasing at about 1.5% per year, about the same as the rate of population increase. With technical aid to farmers production could well increase in the next 25 years more than it has in the past.

He said: "We in America, have not promoted scientific research in agriculture in any way comparable to that in many other fields, such as industrial chemistry. In fact, it is only fair to

Expert Advises Keeping Public Informed on Pollution Problem

HOUSTON.—Because we failed to keep the public informed, they were of the opinion that we had done nothing to solve our air pollution problems on the Houston Ship Channel, disclosed S. Cottrell, vice president of Mathieson Chemical Corp. Speaking before the Southern Industrial Wastes Conference held here April 21 to 23, Mr. Cottrell explained various problems associated with the operation of Mathieson's fertilizer plant.

It took very little investigation, he said, to determine that the plant's contribution to air pollution was in three major fields: dust, corrosive gases, and disagreeable odors. A few tests indicated that bag-type dust filters would reduce escaping dusts to negligible proportions. Installation of a number of such units resulted in a recovery greater than expected; and the values recovered quickly paid for the installations. External corrosion of buildings and equipment has also been reduced, he said. Cottrell admitted during the conference sponsored by the Southern Association of Science and Industry, the Texas Chemical Council, and the Manufacturing Chemists' Association, that Mathieson has no accurate way of measuring financial benefits accruing from the elimination of dust fall on its property, but indicated that the amount is considerable.

In the Mathieson process, phosphate rock is acidulated, and some of the contained fluorine is released. Long ago their plant was equipped with wet scrubbers, said Cottrell and these are quite effective in preventing escape of the noxious gas.

Mathieson operates a large sulfuric acid plant, which has a volume of exit gases ranging upward of 40,000 cubic feet per minute. To deal with this volume of gases and to recover the relatively low percentage of acidic values poses quite a problem, explained Cottrell. After considerable investigation, they installed a two-stage ammonia scrubber for conversion of recovered acid into ammonium sulfate. This unit, at a cost of about \$150,000, has been in successful operation for some six months.

say that we have just begun to apply the more basic sciences to our soil and water resources in this country. . . . If we choose to devote a bit more of our resources to scientific research in agriculture and technical assistance. . . . there is every reason to think that production per acre would continue to rise and that efficiency would increase as much or more in the next 25 years as in the past 25."

The last problem was one of odor, indicated Cottrell, and by far the most difficult to solve. The Houston plant uses spent alkylation acid from local petroleum refineries, and certain organic residues produce quite a noticeable odor. While they do not find this odor particularly disagreeable at the plant, Cottrell said, "I am sure that if it persisted at my residence, I would class it as a nuisance."

After considerable work, which included activated charcoal absorption, all of the common oxidizing agents, and chemical masking agents, they found only two logical alternatives. One was the use of activated charcoal absorbers, and the other was to heat the gases to about 1500° F. These methods were selected in preference to catalytic oxidation, high pressure fog filters, or conventional scrubbers. Since economic calculations favored the heating operation, Mathieson is now in the process of completing a large incinerator installation which it believes will do the job effectively. There is no economic return in this operation, it's simply a good neighbor policy.

Texas City Chemical's new dicalcium phosphate plant, the second such plant to start operation recently (AG AND FOOD, April 14, page 396)



To those who have a pollution problem, Cottrell heartily recommended the Mathieson "three-step program." Find out what your plant is putting into the air, find a commercially possible way of reducing this pollution, and then do something about it. To this he added the fourth most important step: "Keep the public informed."

Industry

Dicalcium Phosphate Plant of Texas City Chemical Operating

Texas City Chemical Co.'s new \$8.5 million dicalcium phosphate plant has gone into operation. Uranium is also extracted in the process.

The plant is producing at the rate of 55,000 tons of feed-grade dicalcium phosphate a year and 15,000 tons of fertilizer grade. The feed grade will be sold under the trade name Dikal and the fertilizer grade under the trade name Texaphos. Bradley & Baker will distribute both products and is establishing an office in Houston to handle them.

Stauffer Reorganizes Sales In Southeastern U. S.

Stauffer Chemical has announced that its Florida sales division will be consolidated with its Southeastern sales area. Melton T. Pearson, who has been in charge of the southeastern area, has been appointed manager of the newly combined area and will transfer his headquarters from Albany, Ga., to Apopka, Fla. The new area will include the states of Georgia, Alabama, Eastern Tennessee, North Carolina, South Carolina, and Florida.

Stauffer expects that the consolidation will enable the company to service its buyers more economically and efficiently.