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## Greater Application of Technology to Meet Farm Problems, Urged by Coke

HOT SPRINGS, VA.—Todav's farmer would be bankrupt in 5 years if his production per man hour or per acre were no larger than in the days of our greatgrandfathers, according to J. Earl Coke, Assistant Secretary of Agriculture. Right now, the farmer is in a cost-price squeeze. The net farm income for 1953 is estimated at approximately a billion dollars below last year. This decline has resulted from production expense and outlays, which have increased 4 times over pre-war level, while gross income has increased only 31/2 times, Mr. Coke told the American Plant Food Council during its meeting here June 11 to 14.

The answer to this problem, he believes, is more efficient farming, which includes better livestock breeding and feeding, more effective disease and pest control, and judicious use of fertilizer and lime methods. What the farmer must be interested in, he declared, is the difference between the return to him and the cost of producing a commodity, not the particular level the product is priced in the market.

In referring to the Administration's policies, the Assistant Secretary said that we cannot depend on restrictive measures to bring supply and demand into balance. "We seek a minimum of restrictions on farm production and marketing to permit the maximum of dependence on the free market," he declared.

The policies of the past have been constructed largely to meet emergency situations such as drought, war, or depression, explained Mr. Coke, and now we need to develop policies and programs that will work effectively in maintaining a stable economy under the circumstances that prevail today. The Administration will not scrap present programs, he said, until they have something better.

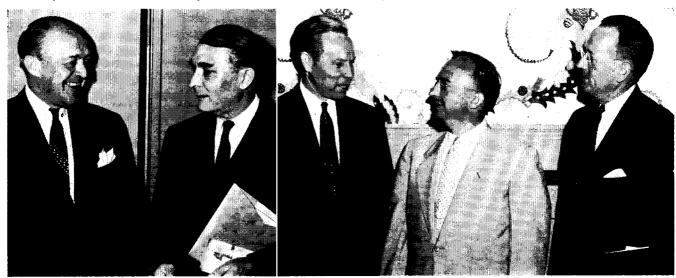
Research and Education Emphasized. Stating that the Administration is committed to greater emphasis on research and education, the Assistant Secretary said that we must add constantly to our sum of scientific knowledge and translate it into workable technology if we are to keep pace with other segments of the

economy and carry out a policy of expanded production and utilization. There are those who would do away with research at the first sign of any surplus production, he said, but he emphasized his belief that we need intensified programs of cost reduction to make it profitable for farmers to expand the volume of products through domestic markets and to hold and expand markets in competition with producers in foreign countries and with substitute products. He also emphasized that there should be greater integration in research by private and public agencies.

"We want the trend toward increased efficiency of production to continue," declared Mr. Coke, "even though today we have some real problems of surplus commodities. To meet this country's future needs for food and fiber, total production will have to rise."

**Downward Trend Seen.** There has been too much worship at the shrine of parity, according to T. K. Cowden, Michigan State College (see page 502) who said that he believed, in the absence

Left: Rep. Clifford R. Hope (right), of Kansas, chairman of the House Committee on Agriculture, chats with Rep. Harold D. Cooley of North Carolina, ranking Democrat on the Committee. Right: Assistant Secretary of Agriculture J. Earl Coke (left), and K. T. Cowden of Michigan State chat with Paul T. Truitt, president of the American Plant Food Council



of an all-out war, we are headed for a decline in the price the farmer receives for his products as compared with the prices he pays for what he buys. Dr. Cowden stated that he believes we are entering a period economically comparable to that which agriculture experienced between 1922 and 1929.

Fertilizer Production on the Increase. Plant food production records have been set by the fertilizer industry for the past 15 consecutive years reported Paul Truitt, president of the American Plant Food Council. He reviewed the fertilizer industry expansion program calling for 70% more nitrogen, 55% more phosphate, and 51% more potash by 1955 in comparison with 1951. He said "steady progress is being made in meeting these domestically accelerated production goals." Mr. Truitt termed efficient use of fertilizer a key to increased agricultural production. Getting farmers to use fertilizer more efficiently, he said, is a never-ending job. It is a job with a responsibility that industry, government, and the colleges share equally. He said that the farmer must use all the tools of agricultural production wisely and efficiently if he is to stay in the business of farming.

Mr. Truitt stressed the fact that "research is of little value if the results are stored away in the scientists' files," and added that "the information must be disseminated and put to use on the farm."

Editors Honored. Two editors of prominent agricultural publications were presented with "soil builders awards" by the American Plant Food Council. From among 37 national magazines representing a total readership exceeding 45 million, Successful Farming was honored by the award to its editor, Kirk Fox. For publications having less than 300 thousand circulation, M. C. Gilpin. editor of the Pennsylvania Farmer, received the scroll.

## Great Potential Use for Fertilizers Offers Challenge

Fertilizers are one of the most effective tools farmers have for lowering the per unit cost of farm products, according to Paul D. Sanders, editor of the Southern Planter. Dr. Sanders addressed the 8th annual convention of the American Plant Food Council at the opening of the forum on "Fertilizers Blaze New Trails Across the Nation."

Dr. Sanders said that despite the fact that fertilizers "are blazing trails...we reluctantly must admit that all too many farmers are not using plant foods effectively."

"A tremendous challenge in the field of accelerated agricultural education and research programs faces all of us in terms of increasing farming efficiency, of using the know-how we have, and the equipment and materials that will shorten the



Participants in the agricultural forum on "Fertilizers Blaze New Trails across the Nation" were: (left to right, bottom) A. W. Klemme, University of Missouri; Paul D. Sanders, editor of the Southern Planter; and H. A. Woodle, Clemson Agricultural College; (top, left to right) J. R. Taylor, Jr., APFC agronomist; Lester H. Smith, University of Vermont; and W. E. Martin, University of California

gap between the price-cost squeeze," he said.

In the panel discussion, extension agronomists from four areas of the U. S. discussed needs for fertilizers in their respective areas. The members of the panel, presided over by Dr. Sanders, included: W. E. Martin, University of California; H. A. Woodle, Clemson Agricultural College; Arnold W. Klemme, University of Missouri; and Lester H. Smith, University of Vermont.

In a discussion of fertilizer potentialities for California, Dr. Martin stated: "Probably the greatest possibility of increased fertilization in our (California) cultivated crops is in barley, wheat, and oats acreage. Results of a four-year study, comparing 220 field tests on grain fertilization, show 60% of our grainlands to be deficient in nitrogen, 42% deficient in phosphorus, while 25% are currently deficient in both nutrients."

In discussing the future needs of California, Dr. Martin said that it seems clear that the 10 million acres of grass range in California will profitably absorb a great amount of fertilizer in the future. As more irrigation water becomes available in California there is likely to be a greater extension of irrigated pastures into the foothill lands which are known to require both nitrogen and phosphorus for maximum utilization.

Mr. Woodle told the convention that farmers in the southwestern states "should use more than twice the amount of fertilizer we are using." He emphasized the importance of extension service education and demonstrations to bring about an improvement in agricultural practices. He said that farmers who are not now following agricultural

college recommendations must see the results "written in the soil." In short, tables and charts mean little to farmers, but demonstrations do change farm practices.

Dr. Klemme discussed the potential increase of farm income which would result from adequate fertilizer practices. He told the council, "If all the pasture acreage of Missouri were given soil treatments, renovated and reseeded, it would all add to the present income from animal products a half billion dollars annually."

Dr. Klemme cited experiments showing that the cost of producing fertilized corn was 11 cents per bushel cheaper than the cost of unfertilized corn. He cited as an example that if corn sold for \$1.50 per bushel, the gross returns from a fertilized acre would be \$177 with a return above output costs of \$113.41 per acre. On the other hand, the gross returns of the unfertilized acre would be \$90 with a return output of about \$51.25, and "It would require more than two unfertilized acres to give the same cash returns as one fertilized acre."

Mr. Smith, in discussing the use of fertilizers on New England farms, predicted that the rates of fertilization "will continue to rise" resulting in "more efficient use of labor and machinery and more milk per man."

On the importance of the increased use of fertilizer on the farm, Mr. Smith said that the farmers of his region were using increasing amounts of high analysis fertilizers. He also expressed the belief that the fertilizer industry must employ more college trained men as salesmen. Because "Farmers are asking technical questions today and they want the answer when the question is asked."