

Fertilizer's Bright Future

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THE RECENT USDA ANNUAL REPORT on consumption of fertilizers, by Scholl, Wallace, and Fox, shows once again an increase in the consumption of commercial fertilizers in the United States. In addition to the general rise in consumption which amounted to 4.4% there was a very significant rise of 8.6% in the consumption of primary plant nutrients. This indicates not only a better realization of the value of fertilizers, but also a sense of importance of efficiency in plant nutrition.

What will be the future of fertilizers? In the feature article of this issue, AG AND FOOD presents a survey based particularly on studies by its 15 field editors in the publication's offices in the West, South, Midwest, and East. The results show promise for the future. In addition to considerable optimism of opinion, there is a great deal of evidence of room for expansion of the fertilizer industry for the good of agriculture and of our welfare. Admittedly there are problems, but always in a major industry and business, there are problems. The important thing is that the possibilities are very great.

Agriculture has become an industry and constantly is becoming more business-like. It is basic to our national economy. Because of their basic position, agriculture and the growing of food can look forward to a dependable growth of market as our population increases steadily. During the past two years, population growth gives indication that by 1975 it will have exceeded the predicted level of 200 million, which was the estimate made shortly after the war.

The chemical process industries serving agriculture and food production are big business—fertilizer is one of the biggest. In the 1954 Facts and Figures issue of *Industrial and Engineering Chemistry*, 50 chemical process companies having the most rapid growth in net sales during the period 1951-53 are listed. Of the top 20 companies, 10 produced fertilizers as one of their major products.

In an industry so big—and competitive—the companies which are to succeed must be completely aware of current trends and they must look sharply to the future. Changes in economic conditions constantly bring about changes in the relative economic feasibility of various processes. This is showing in the fertilizer industry, where in recent years many new processes have been developed. The importance of change and development in the fertilizer industry is emphasized by G. L. Bridger in the *Observation Post* (page 648).

We agree with Secretary of Agriculture Benson that the real problem common to all farmers concerns cutting costs, increasing efficiency, and the building of markets (AG AND FOOD, May 26, page 588). Agriculture and the fertilizer industry have mutual interests. Neither is stationary and both must pay close attention to current and future technical progress to succeed.

What are some of the areas to be watched closely? Farm income trend is of course the most sensitive point. The results of AG AND FOOD's survey indicate that where

acreage restrictions are in effect, there is a definite increase in the use of fertilizer. The reason lies in the farmer's realization that, if he is to farm a smaller acreage, he must do it efficiently to maintain his income. Beating the farm price squeeze is not a temporary problem. We may have surpluses now but there is good reason to believe that they will not be the plague in 10 years. Whatever the situation, it is important to maintain minimum unit costs of production. Fertilizer is an important tool in doing this.

Developments in nutrition and food habits are important to agriculture. Today, for example, nutritionists indicate that there is a trend toward a higher protein diet in this country, with reduction in the carbohydrate intake. This means more meat and more high protein dairy products. Therein lies an important opportunity for fertilizers. Over the country, attention to pasture and forage management has been neglected. In all areas of the country, our editors found attention to pastures and range rated as one of the most important developments for the future of crop management.

Why are some European countries able to get higher yields than American farmers in certain of their grain crops? At least a part of the answer is that they use a much higher level of fertilizer. It is true that some of our crops will not grow best at the high levels of fertilizers used in some European countries. But in those countries the crops have been bred to use of such high levels of fertilizer. Thus we see further reason to believe that we have not reached a ceiling in our efforts to improve production.

We see that a great deal is to be gained through research not only in fertilizers, but in cooperation of fertilizer experts with experts in other areas of agricultural and food science. But regardless of the amount of research, it is not effective until it is put to work. Fertilizer must be sold to the farmer if the farmer or the fertilizer industry is to gain from the advancement of knowledge. Sound sales policies in an industry basic as is fertilizer should be based on education. Our farmers are an educated group and their level of education is increasing. The effects are showing today in the increased use of fertilizer along with other aspects of improvement in farm management. It is in the interests of both the fertilizer industry and agriculture to stimulate better agricultural education. We can talk until we are faint of the benefits of fertilizer, but the farmer must be convinced. Active conviction comes through understanding in his own mind of the benefits to be gained. Good agricultural education is long-range sales development.

We agree with one of the men interviewed in the field that the fertilizer industry has one of the brightest futures of any industry in the country. The surface hardly has been scratched.