going to be increasing their shipments to the U.S.

Indications are that there may still be a temporary oversupply of potash in 1957, when a situation similar to that outlined for nitrogen, (AG AND FOOD, March, page 187) might develop. The fertilizer industry consumes from 90 to 95% of potash production and there may be a time lag between the full production of the potash producers and consumption by the fertilizer industry. The year or two of possible surplus will probably be ended by 1960 when all present and projected production of the Carlsbad area should find a ready market.

Presence of Phillips in Farmers Chemical should work out to mutual advantage of both groups, with Phillips producing all three major fertilizer ingredients and Farmers Chemical probably marketing some of its production through the Farmers Union which may go into fertilizer business.

The big five of Carlsbad may well be a big seven by 1960, and indications are that the newcomers will not be the smallest members

Ag Chemicals Prospects

Outlook for the industry's future is good, but leaders admit business practices need improvement

Business appears to be getting better in the agricultural chemicals field but isn't being handled very well. Leaders were emphasizing the second point at the industry's trade association meeting in St. Louis last month, while the tenor of the meeting held a noticeable amount of guarded optimism. Some of the problems that continue to be tough were emphasized by National Agricultural Chemicals Association's president William Allen, of Dow Chemical:

- (1) Public Education—"No manufacturer, on grounds that he is small, or late to enter the field, or just because he has no inclination in that direction can excuse himself from a share in this responsibility."
- (2) Industry Information—"Manufacturers who are considering whether to enter or eave the production of some item have, at present, no way to determine whether existing plant capacity is adequate with respect to possible markets."
- (3) Credit Policies—"Credit is an indispensable part of the conduct of

modern business. Yet there comes a time when operation of unusual credit systems becomes a greater burden than the production and distribution of chemicals." Emphasizing that he was not suggesting industry use a stiff-arm on dealers and distributors, Allen obviously was taking a whack at consignment selling which has become a plague on the industry.

An even sharper blast at the industry's business practices was let go by John Gillis, Monsanto's marketing vice president. He offered some basic commandments: "First, 'thou shalt make a profit.' Second, 'thou shalt study thy costs so thou wilt know a profit when thou seest it.' Third, 'thou shalt not covet they neighbor's profit.' " The third was no encouragement to price fixing, merely elementary advice to go after competitors hammer and tongs, but not to be suicidal in eagerness to grab his business in a price war.

Is the Market Potential Holding Up?

Always important to the pesticides industry is the farmer's buying power. The NAC group heard from Fred V. Heinkel, president of the Missouri Farmers Association that the prosperity of its \$400 million industry might take a beating if something better isn't done for the farmer. The average price of farm products has gone down 25% since 1951, he declared, and many farmers have left the farm while others have gone broke. He proposed a federally supported foodstamp plan to get rid of farm products surpluses by giving them to low income groups, school lunch programs and other social institutions.

True Morse, Undersecretary of Agriculture, presented a different story in pointing to a rise in farm equities last year from \$144 billion to \$145 billion. while debt remained about the same. He argued that debts of \$17 billion with assets of \$162 billion present a strong position and clear evidence of the financial soundness of agriculture. Furthermore, the need for more and better agricultural chemicals hasn't abated. Morse still rates the loss to crops, pastures, ranges, livestock, and products at \$13 billion a year, with help more urgently needed every year as agriculture becomes more businesslike.

Products Getting Better, But Costs Up

The industry is by no means at a standstill on product development. Actually, the pace is so fast that some are concerned about the risk of the investment required to get into the market in the face of rapid obsolescence. But there is evidence that the old standbys are not dead (10 years is old among organic pesticides) as is seen in weedkiller 2,4-D's sales of 23,175,000 pounds last year.

Some of the more impressive facts make the picture look lucious. But as Du Pont's Arne Carlson pointed out, it takes a lot of doing and spending. Du Pont's bill in effort and money to get its first substituted urea on the market commercially: "more than four years of concentrated laboratory and field work, preparation, and testing of more than 700 related compounds, and a research expenditure of about \$2 million." NAC president Allen estimated that the costs of discovery and development of a new chemical easily can run to \$1.5 million.

The latest concrete addition to the cost is one of meeting requirements of new control legislation, the Miller amendment to the federal Food, Drug and Cosmetic Act. The new legislation, to go into effect July 22, requires establishment of residue tolerances on any pesticides to be registered for use on food crops. This will mean companies will need to present to the Food and Drug Administration scientific data collected for their products in defense of suggested tolerance levels.

Questions submitted following a panel discussion of the bill and its administration at the St. Louis meeting were extensive and varied, the question period lasting well over an hour. One of the toughest problems is how to cope with the matter of zero tolerance, which has been set by the Department of Health, Education and Welfare for some compounds.

Despite some crying, the high cost of staying in the game, and the harm that has been done the industry by some careless business practitioners, the general tone at the meeting was optimistic. One oldtimer declared it the best meeting since San Francisco (1952). Another very active and very well informed figure, commenting that the picture looked bright at the moment, ticked off names of active industry members from almost every section of the country absent from the meeting and opined confidently that they were just too busy.

British Exports

1954 shipments of Ag chemicals from U. K. up 25% over previous year . . . Exporters mainly larger companies with world-wide connections

British Manufacturers of agricultural chemicals increased the value of their exports last year in spite of keen