executive personnel: J. Regenstein, Sr., from president to chairman of the board; J. Regenstein, Jr., from vice president to president; E. T. Collinsworth, Jr., from vice president and general manager to executive vice president and general manager.

V-C Building Three Midwestern Fertilizer Plants

Virginia-Carolina Chemical Corp. has announced plans to construct three new fertilizer plants in the Midwest.

The plants, each designed for the production of high analysis fertilizers, will be located at Orrville, Ohio; Remington, Ind., and Estherville, Iowa. The company said it plans to start construction immediately and expects each to be in production by next spring. With these facilities, V-C will have 39 fertilizer plants in operation.

Lion Takes to the Water

More intercoastal transportation of ammonia is due soon when Lion Oil completes new loading facilities at its Barton Plant. By year-end a part of Lion's (equivalent) anhydrous ammonia production, 350 tons per day, will move to market via ocean-going tankers and river barges. Quick-loading facilities, it says, will fill tankers and barges in less than 17 hours.

Phosphate Producers Reach Agreement with Striking Union

Seven of the eight Florida phosphate producers struck by the International Chemical Workers Union have reached an agreement with the union. Terms of the agreement include wage increases averaging 8.6 cents an hour now and an additional 4 cents next May 15.

At the International Minerals and Chemical plant near Bartow, Fla., the sulfuric acid plant control room was dynamited on the 19th day of the strike, Although the supervisory staff has been operating the plant during the strike there were no injuries to personnel because the crew had not yet reported for duty. Damage from the dynamiting was said to be in excess of $50,000. The company has offered a reward $5000 for information leading to the arrest and conviction of persons responsible for the damage.

Gulf Consultants Offer Specialized Weather Service

Gulf Consultants, a firm operating out of College Station and Houston, Tex., is offering weather forecasts interpreted to meet specialized needs. Weather forecasts, they say, will be issued on a fee or contract basis from the Houston airport.

The new firm plans to interpret weather conditions for agricultural chemical producers who want to anticipate sales. A similar service will be offered to companies, for advertising purposes, which will be made available to farmers through dealers. Gulf Consultants is maintaining its headquarters at 313 Main St., College Station, Tex.

Coronet Names Distributor in West for Feed Supplements

Schroeder Sales Co. of Long Beach, Calif., has been named distributor of Coronet Phosphate Co.'s defluorinated phosphate feed supplements in California and Arizona. Schroeder will maintain warehouse stocks of the supplement at its Long Beach facility.

BUSINESS AND FINANCE

Spencer Sales Hit New High; Competition Expected in Nitrogen

Sales of Spencer Chemical Co. in the fiscal year ended June 30 set a new record but net income was down somewhat because of nonrecurring charges incident to the start-up of a new polyethylene operation, Kenneth A. Spencer, president, told stockholders in the annual report.

Net sales for the fiscal year were $36,154,921, compared with $34,104,178 a year earlier and the gain was accounted for by the larger volume of products sold, primarily from the Vicksburg (Miss.) works.

Net income for the fiscal year amounted to $5,118,454, equal to $4.04 a share, as compared with $5,287,084, or $4.53 a share in the year earlier.

Commenting on various product lines, Mr. Spencer said that:

"Although the market for nitrogen products has become more competitive and more seasonal as the result of the increase in national nitrogen capacity, Spencer, by virtue of its favorable plant locations, its production of nitrogen in desirable forms, adequate storage facilities, and its well-established marketing program, anticipates very satisfactory results for these products in the current fiscal year."

Spencer spent about $1 million on research and development in the year and an additional $400,000 on the related programs of agronomy, product improvement, and market research. The current fiscal year's budget for research is $1 million plus $425,000 for these related programs.

IM & C's Sales Up 3%; Sales of DCP Disappointing

For the 16th consecutive year net sales of International Minerals & Chemical Corp. have shown an increase over the preceding year, according to the annual report for the fiscal year ended June 30.

Net sales for the fiscal year were $96,485,017—the highest in International's history and 3.1% higher than sales of $93,591,934 for the fiscal year ended June 30, 1954.

Net earnings of the corporation for the fiscal year ended June 30 were $6,321,903 compared with $6,043,979 for the preceding year. This was equivalent to $2.55 per share of common stock outstanding, compared with $2.44.

In a letter to stockholders, Louis Ware, president, said that the higher sales volume was realized because of the sale of additional products manufactured in new facilities.

Profits of the phosphate minerals division were ahead of last year. Sales would have reached an all time high had it not been for the general phosphate strike in Florida. Improved efficiency in mining and beneficiation contributed to the favorable record, Mr. Ware said.

Potash division sales and earnings were higher as shipments from new and enlarged facilities increased, although the profit improvement was somewhat retarded by higher costs.

The plant food division realized better earnings from slightly lower shipments, largely as a consequence of increased sales of more valuable, higher analysis materials, he reported.

Sales and earnings of the amino division decreased due to a decline in export business and new foreign and domestic production of monosodium glutamate which has caused price reductions in the bulk Ac'cent market.

"The phosphate chemicals division substantially increased its sales in its first full year of operations but its burden on corporate earnings remained disappointingly large," Mr. Ware told stockholders.

"The products of this division come from two small, older plants producing phosphate mineral feed ingredients and from the large Bonnie plant. Bonnie was constructed to produce, as the major product, dicalcium phosphate, . . . then selling at approximately $100 per ton. Before the plant was completed, farm income dropped, and there was an over-production of electric furnace phosphorus, manufactured for other purposes, which was dumped in the new feed phosphate market. Large volume production of dicalcium phosphate became unattractive at the prevailing prices and production costs.

"Therefore, the corporation . . . constructed, during 1954, a triple superphosphate addition.... with enough dicalcium phosphate being produced to maintain a market position. Manufacture and sale of triple superphosphate on the basis of current results and indications will greatly reduce or eliminate the losses of this new division."

The research division, he said, has developed an improved method to concentrate wet process phosphoric acid. A new process has been developed to produce glutamine in commercial quantities. This is useful for medical and biological purposes and will be sold at about 20% of its former price.

GOVERNMENT

FDA Tightens Restrictions on Filth in Wheat

Food and Drug Administration announces it will tighten sanitary requirements on wheat beginning next July. Legal action will be taken by FDA against wheat containing 1% or more rodent pellets per pint or 1% or more of insect-damaged kernels.

Present regulations, in effect since last January, call for not more than 2% rodent pellets per pint and 2% insect-damaged kernels. Under these levels, FDA had examined 3754 cars of wheat until July 21, 1955, and found 29 cars to contain excess rodent filth, and three cars containing 2% insect-damaged kernels.

George P. Larrick, FDA commissioner, said that experience shows that regulation should be tightened if it is to be effective. He emphasized that deliberate mixing of clean wheat with filthy wheat and use of continued insanitary storage conditions will be violations per se.

Fees Raised for Registration Under Miller Pesticides

The Food and Drug Administration announces that it has doubled the fee for setting of the tolerance for pesticides on raw agricultural commodities. The fee will now be $1000 and should accompany each request for the establishment of a tolerance, plus an extra $100 for each raw agricultural commodity over nine for which a tolerance is requested.

The fee changes were published in the *Federal Register*, Sept. 16.

FOREIGN

Two Plants to Boost Fertilizer Production in Israel

Plants for the production of phosphoric acid and potassium sulfate have started operations as part of the extensive $15 million Fertilizers & Chemicals, Ltd., installations, at Haifa, Israel, according to *Economic Horizons*, publication of the American-Israel Chamber of Commerce and Industry.

The phosphoric acid plant has an annual capacity of 7500 tons. Provisions have been made for expansion of the plant at a later stage to double its present capacity. The output of this new plant will be used in the production of superphosphate and triple superphosphate. The basic raw material—phosphate—is mined in the Negev, Israel's desert in the south, where abundant quantities of rock phosphate are available.

The other new unit, for the production of potassium sulfate, has an annual capacity of 14,000 tons. A major portion of the output is earmarked for export.

Fertilizers & Chemicals' major production so far comprised sulfuric acid and superphosphate. Additional plants under construction, scheduled for completion before the end of this year, include units for the production of ammonium sulphate and nitric acid.

Puerto Rico to Get 42,000-Ton NH_3 Plant

Construction is to begin shortly on a new anhydrous ammonia, sulfuric acid, and ammonium sulfate plant at Guanica, Puerto Rico for Gonzales Chemical Industries, Inc., San Juan. Forty-two thousand tons of anhydrous ammonia will be produced per year. Part will be sold as such, and the balance will be converted to aqueous ammonia, sulfuric acid, ammonium sulfate, and possibly other materials for use by agriculture and industry.

The installation was designed and will be built by the Lummus Co.

The plant will provide a dependable source of ammonia nitrogen and related products for fertilizer, and for the industry of the island. This is of particular importance in times of international emergency when shortages can seriously handicap industrial chemical developments and growers.

RESEARCH

Fertilizer Important in Pasture Management, says USDA

Results of two research projects conducted by the Department of Agriculture recently emphasize the importance of fertilizer in pasture management.

In one project, USDA scientists at the Beltsville, Md., facility, found that drill seeding and band fertilization yielded more forage that broadcast seeding and fertilization. In one comparison, broadcast seeding of found pounds of tall fescue and one pound of Ladino per acre with broadcast application of 750 pounds of 3-12-6 fertilizer per acre yielded 817 pounds of weed-free dry matter in the initial harvest. When the same mixture of seed was drilled and the same amount of fertilizer was banded an inch below the seed, per acre yield of dry matter averaged 2865 pounds. Similar information is now being sought about serecia lespedeza, orchard grass, and birdsfoot trefoil. In addition, study is being started on the effect of placement of the individual fertilizer elements.

In another project, directed to problems in the Northwest, USDA researchers found that three factors are important in developing good, high-yielding pastures with the right grass-legume balance: proper frequency of irrigation; several applications of fertilizer in the right amounts; and delay of clipping until plants are about 12 inches high.

In the Northwest work, on irrigated pastures seeded to a mixture of Ladino clover and orchard grass, it was found that the right amount of nitrogen does not inhibit clover growth, but helps to produce more clover and more forage. The experiments did confirm, however, that not too much nitrogen must be applied. Applications in excess of 50 pounds per acre accelerate grass growth to the point where clover growth is retarded. The most satisfactory rate, they report, is a total of 100 pounds of nitrogen applied three times during the season. However, since they found a two to four-week lag before fertilizer application shows up in the form of increased yields, nitrogen applications, they suggest, should be staggered in small applications once a month during May, June, July, and August. This will help late summer production, when yields normally fall off.

Heinz to Build $3 Million Research Quality Control Center

Plans for the construction of a research and quality control center, have been announced by H. J. Heinz Co. The new structure, to be built at a cost of $3 million, will be constructed at the company's Pittsburgh headquarters and will serve as the research and development center for the domestic and international operations Heinz.

Construction work on the aluminum, glass, and steel, structure was expected to begin late in September and target date for completion of the seven story building is January 1957.

The building will be erected on the site of the two older structures which