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Anhydrous ammonia supplier to most of the Mid-America farm belt, Mid-South Chemical aims at making ammonia easy, profitable, and economical for farmers to use

MID-SOUTH CHEMICAL stems from the Mid-South Oil Co. formed by Ellis L. Woolfolk and J. D. Wooten in 1932 with Pure Oil Co. as a partner. They built Mid-South Oil into a sizable marketing organization which was sold to Pure Oil in 1952.

They founded Mid-South Chemical in 1949 with three principal resources:

- Faith in direct application of anhydrous ammonia as the best means of supplying crops with nitrogen.
- Twenty years successful experience in oil marketing.
- A background in agriculture at the operating level. Six years later, by the end of 1955, their organization has grown into a sprawling young giant, shaped chiefly by those three guiding factors.

Learns of Anhydrous through API Work

In 1946, Wooten, through his activities on the American Petroleum Institute's agricultural committee, learned that anhydrous ammonia was being directly applied to soils as a source of nitrogen by West Coast farmers. Mississippi State College at this time was also doing research on anhydrous ammonia as a nitrogen fertilizer. The Delta Council, a regional farm organization which had Woolfolk as president, helped support this work leading to the building of a test ammonia distributing plant at Tunica, Miss., in 1947.

The results of these experiments were so successful that the Mid-South Chemical Co. was formed in 1949 to distribute anhydrous ammonia throughout the Mid-South, an area ex-

tending from Memphis, Tenn., with a 150 mile radius. Farms in this area needed nitrogen badly. Aggressive



The President . . .

Ellis T. Woolfolk

Key to sales is soil test

promotion at the farmer level and efficient management quickly developed the infant company into one of the largest nitrogen distributors east of the Rocky Mountains. Local distribution stations in every important agricultural center helped give rapid acceptance of anhydrous ammonia by making it immediately available as farmers saw its value. By the end of 1954, over 75 distributing stations were in operation

in states along the Mississippi River from Louisiana to Kentucky.

With Woolfolk as president and Wooten as vice president, Mid-South Chemical Corp. (name changed in July 1955) operates from the Texas Rio Grande Valley almost to the Great Lakes. Barge transportation on the Mississippi River and on the inter-coastal waterways enables Mid-South to reach most of the high nitrogen demand fertilizer market of Mid-America.

First River-Rail-Highway Terminal

Early in 1955, Mid-South built the river-rail-highway terminal on President's island at Memphis to take advantage of economical water transportation from anhydrous ammonia plants in the Gulf Coast area and to provide an efficient central point for ammonia distribution throughout the Mid-South. Special 800-ton-capacity barges bring ammonia up the Mississippi. The ammonia is unloaded and stored in a series of 30,000 gallon tanks before transshipping by tank cars and transport trucks to distributors.

Then in July 1955, Cities Service and Continental Oil acquired an interest in Mid-South, the company became the Mid-South Chemical Corp. Another expansion program was launched immediately which included building other water-rail-highway terminals at Harlingen, Tex., Peoria, Ill., and New Iberia, La. Marketing was expanded into Illinois, Missouri, Iowa, and Texas.

Lake Charles Plant to Supply Mid-South

Cities Service and Continental Oil, through a subsidiary, Petroleum Chemicals, have announced plans to build a 100,000-ton-annual-capacity anhydrous ammonia plant at Lake Charles, La., to use readily available refinery hydrogen. To cost \$12.5 million, the plant is expected to be in operation by the fall of 1957. This plant will supply Mid-South's continually expanding market through the strategically located terminals on Mississippi Valley rivers and Gulf Coast waterways.

Mid-South's combination of low-cost transportation and storage methods to make anhydrous ammonia always available on short notice is but one factor in the company's rapid growth. Their sales program is based on helping farmers institute balanced fertility for their land. The key step in this effort is soil testing. Each Mid-South distributor has all the necessary materials for taking soil samples on any farm. The company maintains its own soils



Richard Rossey, Ronald Dean, Tom Aaron and Robert Wachob (left to right) are students of Mr. Keener. Last year in the Pennsylvania Crop Improvement Association Small Grain competition, they won 9 of a possible 12 prizes.

George W. Keener is Supervisor of Agriculture at Clarion-Limestone High School. His students have been winning prizes for top-notch crop yields for the past seven years.



Right Varieties and Balanced Fertility Produced Prize Winning Crops

This has been a winning program for vocational agriculture students of Clarion-Limestone High School in Clarion County, Pennsylvania. For seven years they have been winning crop prizes. At the 1954 Pennsylvania State Farm Show, they took 25 prizes; and last year's Pennsylvania Crop Improvement Small Grain competition finished with Mr. Keener's boys taking 9 of a possible 12 prizes.

"Each student planned his fertilizer program to meet the requirements of his field. Their programs for getting top yields vary, but

they all have learned how important nitrogen and balanced fertility are," said Mr. Keener. "Ronald Dean, who won second place with a 140-bushel corn yield, plowed down 400 pounds of USS Ammonium Sulfate along with 300 pounds of 8-16-18. That treatment upped his yield 33 bushels over 1954." Clarion-Limestone students placed 1st, 2nd, 3rd and 5th in the corn contest.

Richard Rossey combined USS Ammonium Sulfate with 8-16-16 to win first prize with a wheat yield of 57 bushels per acre. His 97-bushel oat yield took 2nd place. Other

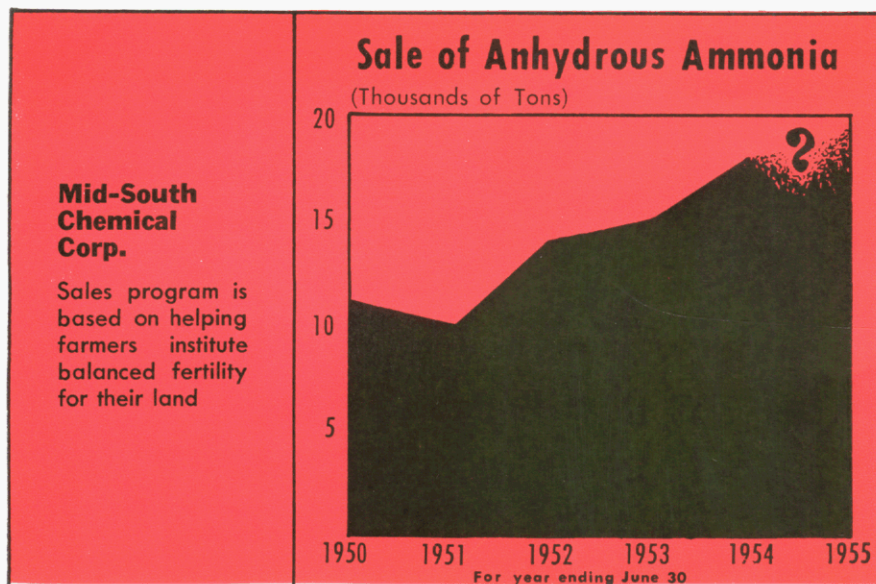
prize winners in Mr. Keener's class were Robert Wachob (3rd place, buckwheat) and Tom Aaron (5th place, corn). Mr. Keener stated, "Our farms need high analysis mixed fertilizers plus supplementary nitrogen if we want high yields at lower unit costs."

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laboratory and agronomy staff, and works closely with colleges in the development of anhydrous ammonia application methods as well as the use of balanced plant foods.

Help to Form AAI

From its beginning, the industry's trade association, the Agricultural Ammonia Institute, has received full sup-

port from Woolfolk, Wooten, and R. H. Wooten, brother of J. D. Wooten and active in company management. They felt that individual company efforts were not enough to publicize the fertilizer qualities of anhydrous ammonia and helped to get together a group of pioneers in the field who formed the AAI. Patterned after the API of which Woolfolk and J. D. Wooten had long been members, the

AAI has an extensive research program in addition to other normal trade association functions. R. H. Wooten is now president of AAI.

The Future

Even though anhydrous ammonia has seen phenomenal growth in the last 10 years, its present apparent over-supply is in reality under-distribution, as ammonia has proved to be the lowest cost and most effective form of fertilizer nitrogen, says Woolfolk. Mid-South's aim remains unchanged: to put anhydrous ammonia in farmers hands in the easiest and most economical way. To date the biggest retarding factor has been the \$1800-\$2000 equipment cost to farmers. A farmer needs 50 acres receiving ammonia to pay out equipment costs in three years, a reasonable time compared with other farm equipment.

To cut farmers' equipment costs, Mid-South is selling ammonia applicators at a minimum cost with a three year pay-out time. Then they will rent a tank and trailer. Thus with equipment easily obtainable, farmers will have an added incentive to apply anhydrous ammonia.

Pricing Changes

A second part of Mid-South's plans for increased ammonia distribution is that of establishing a realistic price for ammonia. The posted price will separate the actual price of ammonia itself and the price of renting a tank and trailer as contrasted to present industry methods of combining all ammonia costs (including delivery costs in some cases). In this way a farmer will be buying ammonia knowing its nitrogen cost in terms of cents per pound. Accurate cost figures will be another incentive to farmers for using anhydrous ammonia to the fullest extent.

As a third sales incentive, Mid-South will carry an individual farmer's account in a similar fashion to oil company commission distributors. This service should reduce delivery costs and help to ensure farmers always having an adequate ammonia supply on hand. Thus in areas of extremely heavy seasonal demands (in Illinois, the 1954 ammonia season lasted only 41 days), railroad tank cars and even barges can be spotted to supplement limited tank capacities.

Finally, when Petroleum Chemicals, owned jointly by Cities Service and Continental, brings its 100,000-ton-per-year ammonia plant on stream, Mid-South plans further market diversification both agriculturally and geographically.

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