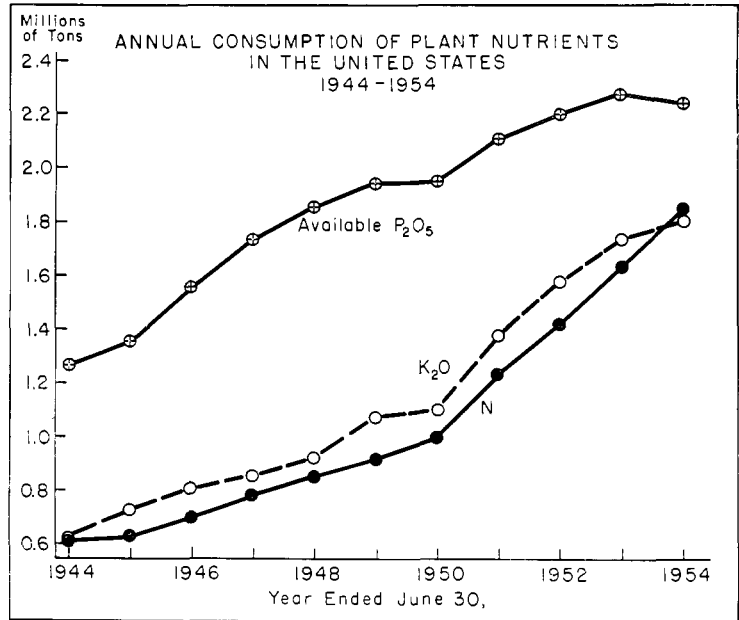


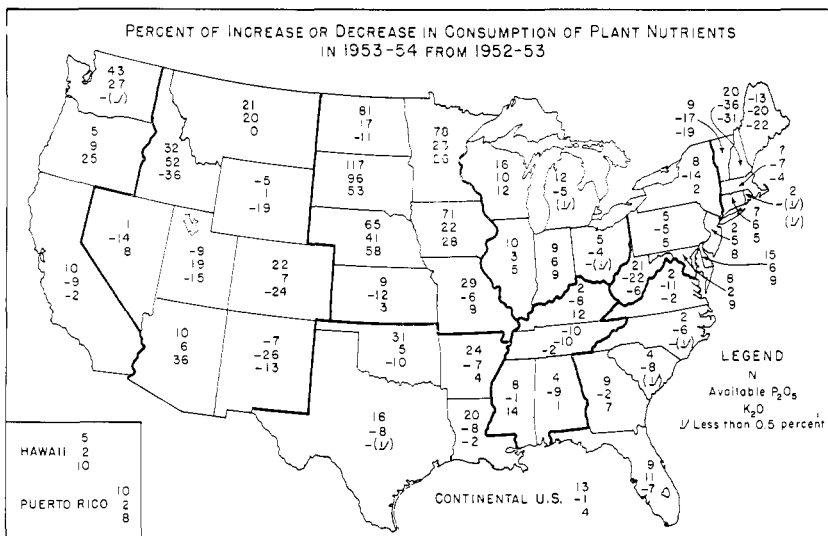
How Does the Fertilizer Business Look this Spring?

Ag and Food's field editors, after a searching survey, put it like this:



Source: USDA

- ▶ Volume is definitely off, except perhaps in West. Reasons: farm income decline, bad breaks in weather, and farmer's delay in buying. Many expect, however, that total plant food will not be down.
- ▶ Nitrogen expansion causing sharp competition in South. Prices down there as much as \$20 a ton on anhydrous.
- ▶ Trends toward high analysis, liquids, granulation continuing unabated across the U. S.
- ▶ Fertilizer use in pasture improvement increases, but pace is slow. Acreage cuts on corn, lower prices for soybeans may encourage conversion to pasture in corn belt, but fertilizing pastures needs more hard selling.
- ▶ Pacific Northwest and Mexico, along with new land coming under cultivation, will probably absorb new nitrogen and phosphate capacity under construction in West.



Source: USDA

The trend of consumption of total plant nutrients continued upward last year, according to the recently completed survey of commercial fertilizer consumption in the U. S. for 1953-54, by Scholl, Wallace, and Fox, of USDA. But as the two charts from that study show, the pattern over the country varied.

Excess ammonia production in the South has led to price cutting, 17% price reduction in some areas

NATIONWIDE AMMONIA CAPACITY, pushing rapidly ahead of the market, has created a surplus of at least 500,000 tons. New production scheduled to come on stream will apparently keep supplies far in excess of sales for perhaps another two years, and the South is feeling the effects of this development.

Some distributors say that sales and use of anhydrous ammonia will suffer or discontinue to grow at a rapid pace unless producers and sellers develop sound sales policies. Current sales practices are discouraging future distributors from entering the business.

Many factors are involved in the supply and demand picture. In considering the quantity of nitrogen available for agricultural uses, one must give due consideration to the seasonal aspects. The amount of nitrogen available for agricultural use actually is limited to inventories at the beginning of the spring season, plus plant capacities during the season. This quantity is far below total plant capacities, less nitrogen for other uses.

One southern producer says a small surplus appeared during the past fall and winter, but that his anticipated supply through the spring season has been fully committed. This applies, he says, to all of the company's nitrogen materials—seasonal shortages will exist for ammonia, ammonium nitrate, and ammonium sulfate. But this is not the case with many producers in the South.

The inventory and seasonal demand situation makes it difficult to determine whether the nitrogen supply exceeds agricultural demand because of overproduction, or because of a slump in farm prices and acreage restrictions. Few producers are willing to guess how long it may be before sales will permit all plants to run at full capacity. Greater emphasis, they say, should be placed on the year-round use of nitrogen to take advantage of plant capacities.

Many of the basic producers are already making ammonium nitrate, nitrogen solutions, and even urea, to meet varying demands of agriculture for different types of fertilizer for different soils. The usual rumors are circulating that more basic producers plan to switch output to these materials, but proposed production in most cases involves new plants rather than existing installations. The program now coming to fruition for urea production appears to be ambitious one; several new manufacturers are experiencing production difficulties.

Ammonia Cut \$20 a Ton

There is a definite trend toward lower ammonia prices at the farmer level throughout the South. Prices of ammonia

(not applied) in Missouri and Arkansas have dropped from \$145 a ton to \$120 a ton. In other southern states the price has been cut \$10 to \$20. The \$120-a-ton price, some say, discourages the distributor because of his low profit.

Retail prices in the Mid-South are probably realistic with distribution costs—and should remain firm in the future. Basic producers are hoping that further reductions will not occur, the consumer is already getting a good buy for his money. Growing pains in the distribution program were bound to occur in a field which has grown as rapidly as that of ammonia. Now undergoing its first major "shakedown" during an unsettled period, ammonia distribution will probably come out of the situation with a strong, and perhaps more rapidly growing, program.

Two trends are apparently developing on the dealer front, which has a net effect of increasing the number of distributors. In some areas the trend is toward consolidation of several of the smaller companies, principally through acquisitions by Chemical Enterprises. On the other hand, new dealers are being established at a fairly good pace, the list of customers growing constantly. Some dealers are breaking away from the larger distributors and are setting up on their own.

Lion Oil recently increased its anhydrous ammonia storage facilities at El Dorado, Ark., and Luling, La., to more than 20,000 tons. Company officials believe this to be the largest anhydrous ammonia storage in the nation. The storage spheres shown below are located at Lion's chemical plant in El Dorado. In addition, Lion has 21 anhydrous ammonia storage stations located in various portions of its marketing area to facilitate distribution



Applying equipment hasn't seen any startling innovations recently, other than the introduction of a few new machines by Taylor Machine Works at Louisville, Miss., which appear to do a very creditable job of applying anhydrous ammonia to hard sod pastures. Until recently the sealing of ammonia in the soil under such pastures has not been too efficient or effective. In general, developments now appear to have settled down to refinements and improvements upon existing equipment.

More consideration should be given to plow-sole application, which should experience quite a bit of growth in the future. The farmer needs equipment so that he can apply the ammonia himself at the same time he is preparing his land. According to the experts, ammonia should be applied only when the soil is suitable for working under good farming conditions (4 to 6 inches deep when the soil is neither too wet or dry).

Liquid Fertilizer Gaining

Liquid fertilizers are taking a larger share of this spring's market in the South. They are easier to apply and cost less than other materials. Farmers have no problem obtaining the amounts they need without being forced to buy or take early delivery. Anhydrous ammonia leads the list of best sellers in the liquid fertilizer field. The reasons for ammonia's success vary: in some areas it is the only material available; in other areas people say they need only nitrogen and lime for their soil.

During the current fertilizer year, one distributor in the Southeast added 14 individual stations which almost doubled the ammonia distribution system in that part of the country. In this same area there was only one fertilizer distributor in business last June, operating with 20 bulk plants. He indicates, however, that he hasn't lost any business due to the new competition—a good indication of increasing consumption.

Until this year, there was little competition in parts of the Southeast from nitrogen solutions. Only one outlet was trying to sell nitrogen solutions in Georgia and his tonnage was small. In the last few months, several other distributors have started with solutions and are doing well with their sales.

Nitrogen solutions got quite a play in Georgia three years ago by 11 distributors. All but one went out of business that year or the following year. This is probably because nitrogen solutions have a hard time competing with anhydrous ammonia in areas where ammonia sales are already established. One distributor believes that anhydrous ammonia will win out in the end, in places where application of the product is not a problem. About 98% of the liquid fertilizer sold in Georgia for row crops is anhydrous ammonia, although there is a small movement of packaged liquids used in transplant water for tobacco plants and tomato plants.

No one seems to know how hard Allied Chemical & Dye plans to push the solution business in the South, but so far solutions have come out second best in Georgia competing with anhydrous ammonia. Nitrogen solutions shouldn't be "sold short," however, because they are fully as good as the comparable solid product. They will have plenty of room for sale and expansion in areas where application of anhydrous ammonia is difficult, such as the rocky, mountainous areas of north Georgia.

Price cutting is not prevalent with all products throughout the South, although there have been fringe price cuts and under the counter price cuts in some spots. Some say that these cuts are a result of confused selling policies on the part of suppliers.

Producers are tending to give financial backing to distributors for increased storage of anhydrous ammonia. Some producers believe that they will have to go all the way to the farmer, others want no part of the business except the actual manufacturing. Storage in general has increased very little this year in the South. Suppliers will soon have to decide whether their sales policies are favorable to legitimate dealers.

Triple Super Crowds Single

Triple superphosphate is taking over some of the markets previously held by

single super. In the Southwest it has a lower plant food cost on a unit basis. Ease of handling plus savings in transportation and application costs make triple super a popular material. Triple super has practically no freight advantage in the Southeast, so single super is holding its own, but inquiries about triple are increasing.

The demand for granulated fertilizers is making itself felt quite strongly in the Southwest, as it has for the past several years. This material stores better and drills more uniformly; it is well adapted to airplane application. By comparison, there is not nearly as much interest in granulated materials in the Southeast although these materials are being introduced and pushed for the first time in Alabama, Georgia, Florida, and South Carolina. Consumers in some areas seem unwilling to pay a premium for granulated materials. Rice farmers, who employ airplanes for fertilization, are large consumers.

The number of mixed grades is actually being reduced in some parts of the South, but the trend towards even higher analysis fertilizers is continuing. Actually, very little progress has been made towards reducing the actual number of grades in most states.

The demand for fertilizer-pesticide mixtures continues to grow throughout most parts of the South. This situation is getting worse for the average manufacturing plant because of the inconvenience of mixing. In some areas there has been a slight improvement in terms of narrowing down the number of insecticides used. The issue is getting more discussion, causing more debates. The practice is increasing, more states are allowing (although regulating) it; obviously it is here to stay.

Pastures, permanent and temporary, have generally been slighted in fertilizer treatments, although pasture fertilization is growing at almost a snail's pace in most of the southern states. This acreage probably offers by far the greatest potential for increased and effective use of fertilizers. Drought, limited availability of government money for this use, and low beef prices during the last three years has slowed down sales. Until price and weather conditions improve greatly, rapid increases aren't in the cards. Over the last five to 10 years, however, pasture and range fertilization has increased considerably. It is probable that current usage is somewhat less than that of two or three years ago.

Export Problems Trouble Many

Domestic consumption of ammonium sulfate is lagging behind production. Manufacturers are out looking for foreign markets, but they have to buck strong competition from foreign producers. There may be more of a swing to

diammonium phosphate by coke oven ammonia producers because the quality of their ammonium sulfate is inferior to that of the synthetic product, but the supply of phosphoric acid will play an important role in this development.

Ammonium nitrate is in short supply on the domestic market, particularly during the spring season. Although a few local areas may have an excess, producers are not too anxious to try for export markets.

Urea has received considerable attention as a source of nitrogen; its use will probably increase as more supplies become available. At present f.o.b. prices, it is more expensive than ammonium nitrate, about the same as ammonium sulfate, but less expensive than nitrate of soda. Competition may change this price relationship as soon as the new producers enter the market. Some say the price is still too high in the Southwest. Urea is generally not available in some areas of the Southeast like North Carolina, except as "NuGreen," a Du Pont product, which is not competing pricewise with anhydrous ammonia, nitrogen solutions, and ammonium nitrate.

Almost everyone in the industry has a problem. Basic producers are having a hard time predicting demand, and so are the mixers. Dealers are busy collecting loans from last season's failures and arranging for financing of this season's program. The farmer, of course, is having trouble making payments and negotiating new loans.

Fertilizer demand generally hasn't exceeded supplies at any time during this season in the South. It is doubtful if there will be any shortages except in isolated cases and for some specialized materials. Almost all fertilizers moved slower than normal during the first quarter of 1955. Inventories of regular mixed goods and most other materials were probably larger than normal at the end of this period.

The price situation in the South is repeating a similar situation which occurred at the end of the 1954 season. Competition is very keen for mixed goods sales, and in some cases for straight materials. Prices to the farmer are from 5 to 10% below regular list prices in the Midsouth.

Fall application for spring consumption is out of the question, some leaders say. Industry in general did not campaign to push fall sales in most parts of the South, except where crops were planted that need fall fertilization. There was no significant fall movement except in the disaster areas, as declared by the USDA, which stimulated fertilizer sales.

The smaller manufacturers are definitely getting into distribution to the farmer. In certain areas larger manufacturers are following the same trend, by-passing the dealer.