SATURDAY, JUNE 16

10:00 A.M. **Convention called to order**
Theater

Address:
"Farming in a Defense Economy"
The Honorable Charles F. Brannan
Secretary of Agriculture

10:45 A.M. **Agricultural Forum**
"Fertilizers' Contribution to Better Living"
Dr. Paul D. Sanders, *Editor*
THE SOUTHERN PLANTER
Richmond-Moderator

Ferdie Deering, *President*
American Agricultural Editors' Association

Dr. R. Frank Poole, *President*
Association of Land-Grant Colleges and Universities

Phil Alampi, *President* WJZ
National Association of Radio Farm Directors

Edwin Bay, *President*
National Association County Agricultural Agents

Robert A. Wall, *Vice President*
National Vocational Agricultural Teachers' Association

11:45 A.M. **Business Session**
Reports of Committees
Election of Members of Board of Directors
Announcements

12:00 **Adjournment**

Afternoon Golf and Tennis
Ladies' Events

6:30 P.M. **Hospitality Hour**
Colonial Room

Annual Banquet
Colonial Room

Entertainment
Soloist, Miss Gloria Ryan

8:00 P.M. **Annual Address**
"Danger Signs in Our Domestic Economy"
United States Senator
Karl E. Mundt
of South Dakota

10:30 P.M. **Dancing**
Ballroom

SUNDAY, JUNE 17

9:00 A.M. **Breakfast Meeting, Board of Directors**
Regency Room

Appointment of Executive Committee

Election of Chairman

Adjournment, sine die

• *All meetings on Eastern Standard Time*

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Statement for Panel Discussion
American Plant Food Council Annual Convention
Hot Springs, Virginia
June 16, 1951

By Ferdie J. Deering
Editor, The Farmer-Stockman
Oklahoma City - Dallas

In the great Southwest, we are accustomed to doing things in a big way. One hundred years ago, the United States government moved thousands of Indians from other sections into Indian Territory in a few months' time. Cattle barons roamed the broad prairies to herd cattle over ranches measured in hundreds of square miles.

Then, when Oklahoma territory was opened to white settlement 60 years ago, thousands of settlers moved in overnight.

Then came oil. Since the black gold was discovered, Oklahoma and Texas have produced millions of barrels annually, remaining among the richest producing states for a half century and still bringing in vast new deposits.

When wheat was needed, the Southwest produced hundreds of millions of bushels a year. And although this year's cotton crop probably will not be the largest on record for the Southwest, we expect Oklahoma and Texas to grow more than one-third of the entire United States cotton production for 1951.

Our millions of acres of pasture land have been improved to provide for our great beef and dairy herds. And we produce scores of national 4-H and FFA champions each year who are growing up with modern farming methods.

When tractors and cars and airplanes came along, farmers on the Great Plains mechanized so completely that today there aren't enough work horses to put one team on every farm.

In the 1930's, we had the biggest drouth in the Southwest the country ever heard of. When we have floods, we have some big ones. When soil erosion set in, we had some mighty big gullies, but when soil conservation was born, Southwestern farmers took to it so wholeheartedly that today, no section of the country is more aggressively conserving and improving its soil. Good or bad, we do it big.

Those modest statements are made to help you to visualize what is happening in Oklahoma and Texas in connection with the use of commercial plant foods. Southwestern farmers are going for fertilizers like they do other things--- in a big way. Expansion may be taking place in other areas also, but probably not on as extensive a scale.

Just 10 years ago, we were using only small quantities of fertilizers, compared to the older use areas. We figured our soil was not so old, not so exhausted, and we had only limited authentic information on what our soils needed or could use. Many people thought we were too far west to use fertilizers. Some of our data then is now proved wrong, and we now know that our soil fertility problems on the Great Plains are more serious than our erosion problems were.

Our farmers haven't been satisfied to wait on research scientists to tell them all of the answers. They have done a lot of experimenting on their own farms, trying to boost yields and to increase income.

The result has been an amazing rate of increase in use of fertilizers, coupled with good farming methods.

The average annual use of commercial fertilizers in Oklahoma for 1935-39 was only 7,000 tons. Then the tide set in. Every year showed substantial gain, until the 1950 total was 143,000 tons. That is less than some older states use, but it is more than 16 times the rate used 10 years ago, and we foresee even greater expansion ahead.

Wesley Chaffin, Oklahoma A&M College agronomist, recently estimated that Oklahoma needs immediately more than five times as much fertilizer as was used in 1950. He said the potential nitrogen, phosphorus and potash needs of Oklahoma are equivalent to 148,000 tons of ammonium nitrate, 557,000 tons of superphosphate, and 42,000 tons of muriate of potash, or a total of nearly 750,000 tons.

In Texas, the 1935-39 average was under 80,000 tons. Increases every single year brought this up to 553,000 tons in 1950. That is about seven times as great as the 1935-39 average. Sales probably would have been higher had ample supplies been available when farmers needed them.

"How far west can fertilizers be used successfully?" That question is often asked, and there are many answers. One thing is certain. We don't know as much about it as we used to think we knew.

The best answer I've had lately is one given me by Dr. Roy L. Donahue, Extension Agronomist at Texas A&M College. He had observed successful use of commercial fertilizers on peanuts in the 20-inch rainfall

belt southwest of San Antonio. His answer to that question of "how far west?" --- was this: "You can use fertilizers anywhere that plants grow --- if you know how."

A survey made a little more than a year ago showed some irrigation, mostly supplemental, going on in 65 of Oklahoma's 77 counties. Water comes from wells, rivers, ponds and lakes. It is spread by surface or ditch methods and by elaborate sprinkler systems. Because we have natural rainfall varying from 20 to 50 inches a year, this irrigation system does not require as much water as in some other areas. Usually, it is the one or two extra waterings that makes the crop. When a farmer irrigates, regardless of methods used, he cannot afford to do without fertilizer. He must make maximum yields in order to get the most out of the dollar he spends for water.

Another amazing development is the way in which farmers have taken to laboratory soil analysis as a means of telling them what they need in the way of plant foods. In Oklahoma there is a soil testing laboratory within 50 miles of every farmer and stockman in the state. There he can have as many samples run as needed, at a nominal fee, and talk personally with the man who makes the tests. There are now about 65 of these laboratories set up through the Oklahoma A&M College extension service. The first one was set up in Tulsa county, Dec. 16, 1949, only 18 months ago. About 1,500 samples per year will be processed by each laboratory.

Expanded facilities also have been set up by agricultural colleges in other states. In Texas, a large central laboratory can handle more than 100 soil samples daily. It is located at the college and is supervised by

expert chemists.

I am not going to attempt to cite results that have been and are being obtained by farmers using fertilizers. Results have been wonderful. Whether used on row crops, sown crops or on pasture crops, we are finding ways to make more money from fertilizers. Farm magazines in all sections publish success stories on results every month, and there are hundreds more where they came from.

Although we need a tremendous amount of additional research before we know all there is to know about fertilizer, we have seen enough to know that fertilizer is an investment in greater profits, not an expense. And the newer use areas are learning from the experiences of farmers in older sections.

M. K. Thornton, agricultural chemist for Texas A&M College, said: "Even though Texas farmers are using enormous amounts of fertilizers, they are not depending upon the plant food supplied by these applications to do the entire job of soil improvement. There may be good reason for this, because farmers in the southeastern states found that after heavy applications of fertilizers had been made for 20 to 30 years, crop yields began to drop. They tried to remedy the situation by using more fertilizer.

"That was not the answer. The use of green manure crops, mostly legumes, did provide the answer. Clover roots opened up the subsoil. The legumes when plowed under added nitrogen and humus to the soil, making it friable and giving it life. The water holding capacity was increased and its tilth greatly improved. Crop yields went up. The rate at which Texas farmers are using superphosphate and other fertilizers with legumes in crop rotations

indicates they are not waiting for this situation to develop."

And so progress is being made. But we need more research and information to help the farmers. It may come as a surprise to some of you when I say that fertilizer manufacturers and dealers often do not speak the farmers' language.

If I said to you: "Set the cotton yarn 8 on 9, with 36 point garamond head double leaded and tell the devil to throw the extra galley in the hellbox", some of you might not know what I mean. That's technical printship language. So it is when we talk about 4-12-4 or 0-20-0. You might say everybody knows what that means, and I'll admit that most farmers probably have seen or heard the terms. But that is technical language of the fertilizer industry that farm magazines must translate to our readers.

From interviews with farmers and stockmen I have learned that many who use the terminology fluently have only the vaguest ideas as to what the grade terms mean. We are trying to tell them, not once, but often, so that they can get better results from the fertilizers that they use.

Farmers must have some idea of how to interpret the recommendations of their soils laboratories, must understand how legumes and fertilizers fit together in a soil-building program, and they must understand what they are buying and why. They should know some of the signs of plant food deficiencies just by looking at a crop.

In this connection, your organization might be able to do quite a bit through visual aids. Hundreds of rural community organizations are eager for constructive programs that will help them do a better job of farming and build up their land. Slides, movies and similar materials explaining the basic

facts about fertilizers no doubt would be welcomed for such meetings.

The matter of supply of fertilizers is one which is uppermost in your minds right now. Fertilizer men I've talked with feel that farmers should be as concerned about the shortages of sulphur and other materials as they are. They may be right --- but in my contacts with farmers, I find that they simply are not greatly worried. The farmers and stockmen have a lot of worries of their own --- cattle price rollbacks, acreage allotments, the weather and a few dozen other major items. They figure, rightly or otherwise, that it is the business of the fertilizer industry to obtain the supplies and produce the materials. If available, they'll buy fertilizer. If not, they'll do the best they can without it.

Should we try to agitate the farmers about the supplies? Frankly, I don't know. We've been so busy trying to prove to farmers that fertilizer money is invested---not spent--- that we hesitate to start a different campaign. If Mr. Farmer is not yet sold on the production value of fertilizers, he is going to be hard to arouse to action concerning the critical shortages and problems of supply that you face. On the other hand, if he knows his profit depends on fertilizers he is likely to put out considerable effort to demand that the supplies be forthcoming.

So far, most farm magazines have taken the positive approach. We have tried to convince farmers that fertilizers are an essential element for high production and reasonable profit. That still looks to me like the best road for us to follow in helping to obtain the food and fiber production that this country needs for itself and for the world.

Farm magazines have been trying also to encourage farmers to buy and store their own fertilizer, so that they will be more certain of having what they want when they want it. In the Southwest we have two peak seasons. The main one comes in the spring, when summer crops are planted, and the other in early fall when winter grains are being seeded. Of course, you know what this means to the industry. Some months you can't move a sack and then all at once everybody is after you for quickest possible shipment.

We are urging farm storage in dry barns, or else storing the fertilizer in the soil, as has been successfully demonstrated in several states. Only by doing this can farmers hope to obtain the fertilizer grades they need at the time they need them.

Farmers who are looking ahead are going in for fertilizers in a big way. It is going to take an alert industry, producing on a large scale, to meet the needs of our stockmen and farmers in the years ahead. We have seen what plenty of plant food does to crop yields and farm income ---- and we like it!