NEWS

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- Biochemical Engineering
- Fermentation
- Food Processing
- Nutrition
- Pesticides
- Plant Nutrients and Regulators

Flexible Supports Here to Stay, Says Senate Ag-Committee Head

Industry leaders believe anhydrous ammonia for direct application exceeds USDA tonnage estimates

NEW ORLEANS.—How hard will Democrats fight the Benson plan after Jan. 1? Only to a limited extent, says Senator Allen J. Ellender (D.-La.), chairman of the Senate agricultural committee. "With such a close balance between Republicans and Democrats, it may not be a good time for Democrats to try to usher in rigid controls," he indicated, "although I'm sure efforts will be made in that direction."

Addressing the fourth annual convention and trade show of the Agricultural Ammonia Institute here Dec. 6 to 8, Senator Ellender said it would be difficult to pass a law in favor of rigid controls, especially if Secretary Benson keeps all basic commodities (except wheat) at 90% of parity.

"Even if a law were passed the President would veto it," said Senator Ellender, "and we would have difficulties mustering enough forces to override his veto."

USDA Estimates Low. Government figures on the amount of anhydrous ammonia used in direct application are low, says E. W. Thomas, Farm Service Corporation, and president of the Anhydrous Ammonia Institute. "My opinion," he said, "is shared by many others in the industry."

USDA estimates, explained Thomas, are based on figures reported by various states; analysis of these figures shows many discrepancies. Direct application of anhydrous ammonia has spread so fast in many states that no adequate system of reporting has yet been devised. Some states do not report at all, he indicated.

A large amount of ammonia leaving producers' plants scheduled for industrial use, and so reported, eventually finds its way into direct application, asserted Thomas.

"It seems to me that 400,000 tons might have been used last year, which if true, means that we are a year ahead of USDA figures," he predicted. (USDA estimated 330,000 tons for fertilizer year ending June 30, 1954.)

If the USDA predicts a 19% increase for the coming season (395,000 tons), it is logical to assume that actual consumption might reach 475,000 tons, indicated Thomas. This figure, he says, is roughly 22% of the total anticipated use of agricultural ammonia in all types of fertilizers.

Thomas pointed to the fact that direct application ammonia last year had increased 44% over the previous year. "In spite of tremendous increases, experts say farmers are still using only 50% of the nitrogen that sound agricultural practice would indicate as immediately desirable," he cited.

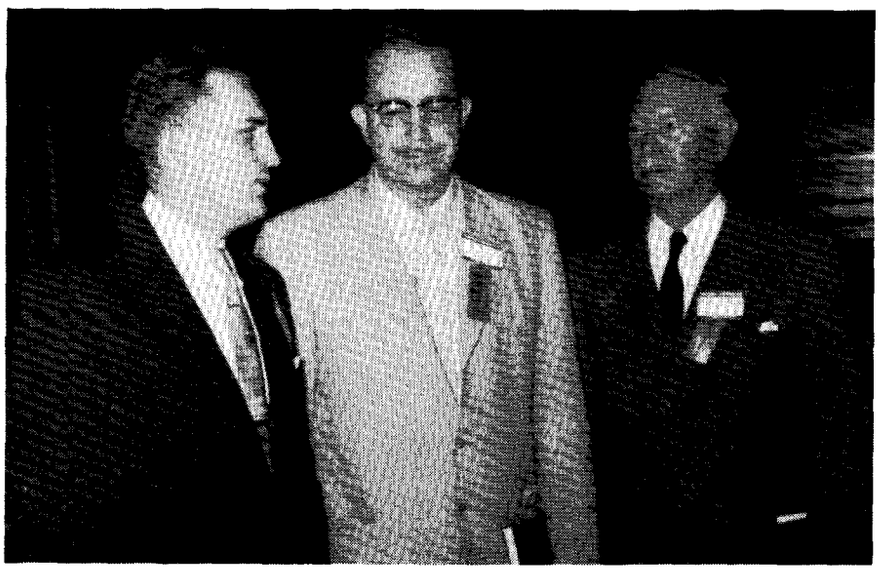
Conservatively speaking, the increased production from use of anhydrous ammonia during the past fertilizer year would amount to some $400 million in farm products. The increase in net profits from farming this land with adequate ammonia, he said, was at least three times what it would have been without adequate nitrogen.

Two Million Tons. This year (ending June 30, 1955) we shall pass the 2-million-ton mark with our supply of fertilizer nitrogen, indicated Firman E. Bear, recently retired chairman of the soils department at Rutgers. Synthetic nitrogen plants in place, under construction, and proposed indicate a capacity exceeding 3 million tons, he asserted.

"The better farmers are tending to use from 25 to 100 pounds or more of nitrogen per acre on all their crops except legumes," said Bear. "And increasing numbers are using nitrogen even on legumes," said Bear. At 25 pounds of nitrogen per acre on our total area of cropped land (350 million acres), consumption of this element would be about 4.4 million tons annually, or over twice our present tonnage, he asserted.

"There is good reason to believe that a larger percentage of farmers can use considerably more than 25 pounds of nitrogen per acre to advantage," said Bear. And there is a much larger tonnage of grassland that is in serious need of nitro-

Russell Coleman, president of NFA (left), E. W. Thomas, president of the Agricultural Ammonia Institute, and Ralph H. Wooten of Mid-South Chemical Co., new president, at the recent meeting of the Institute in New Orleans



gen. This area includes not only that located in the humid regions of the United States, but the western ranges as well.

One of the most troublesome problems ahead for the nitrogen industry, asserted Bear, is that of keeping other nutrients in balance with the much larger amounts of nitrogen that will be applied.

The Short-Term Problem. The short-term problem facing American agriculture is not so much how to adjust production to demand, but how to do it without reducing net farm income, says Russell Coleman, president of the National Fertilizer Association.

The answer, he declared, is to decrease unit cost of producing farm commodities, thus making is possible for farmers to earn as much or more profit from smaller acreages and smaller total output.

Quoting results of agricultural experiment station research throughout the nation, Coleman explained that farmers could easily reduce cotton production from the recent average of around 15 million bales to only 9 million bales without cutting the total net return realized from their cotton crop.

The nation's wheat crop could be cut by nearly one third while wheat growers would still make as much profit as now. In the case of corn, approximately the same net profit could be realized from a 2-billion-bushel crop as from the present 3-billion-bushel average national output, he said.

This would be possible, indicated Coleman, if every American farmer would put into practice the recommendations of his state agricultural experiment station as to fertilizer usage and other good farming practices.

In effect the experiment stations are suggesting that farmers produce maximum yields at minimum costs on as few acres as possible, he said. "If this advice were followed, American farmers could remove from cultivation millions of acres presently in need of rebuilding, but which undoubtedly will be needed to feed and clothe our future generations."

Biological Warfare Against Insects Appears Promising

Many farmers lose more cotton to insects than they take to the gin; annual damage $261 million

DALLAS.—Biological warfare against insects gives promise of controlling destructive pests, says E. F. Knipling, USDA entomologist. Practical ways to utilize disease organisms have already been found, as indicated by the success of milky disease for controlling Japanese beetles, and viruses for curbing the alfalfa caterpillar and the European pine sawfly.

In a report before the eighth annual Beltwide Cotton Insect Control Conference here Dec. 2 and 3, the government official indicated research is yielding valuable information on other virulent insect viruses and microorganisms.

Great strides have been made in the use of systemic insecticides, he said, and certain materials now known will protect cotton against some insect pests for periods of six to eight weeks.

Urging his listeners at the National Cotton Council of America meeting to explore all possibilities, Knipling pointed to experiments now going forward on atomic radiations. "The latest information on screw-worm eradication, by releasing reared gamma-ray sterilized male flies among the wild population, suggests other possibilities," he commented. The unique method, he said, may be feasible for eradicating other insects present in small numbers at some period during the seasonal cycle.

Staggering Losses. If cotton insect control methods are so much better now then 10 years ago, and if so many more farmers are practicing insect control than ever before, why is one bale in seven still lost to insects? This question was asked by K. P. Ewing, entomologist in charge of the USDA's Cotton Insects Section.

In the first place, said Ewing, cotton farmers and others in cotton production, through extensive education, have become more insect conscious. They know more readily how to recognize insects and the harm insects do. This has led to more accurate diagnosis and reporting of insect damage.

Another factor, he indicated, is that cotton is now grown on improved, more fertile land. Usually this land produces a more luscious plant, one which attracts insects over a long period. Consequently, there are more insects and they multiply more rapidly and longer than under less favorable host conditions.

Ewing said there was every reason to believe potential per-acre yields will continue to rise. Under such conditions insect problems will also increase unless new and improved methods of control are discovered, he warned. Research on systemic insecticides appears to promise the greatest immediate returns, he said, and seed treatment seems especially adaptable to cotton insect control in the seedling and early fruiting stage.

More Education Needed. "The fact that many of our farmers lose more cotton to the bugs than they take to the gin," says C. B. Spencer, Texas Cottonseed Crushers Association, "places emphasis on the need for a still more aggressive and effective educational program." With a drastic reduction in cotton acreage, it is of vital importance that industry work closely with agricultural leaders and cotton growers to ensure maximum yields from each acre planted to cotton.

Spencer said the 1953 Cotton Insect Survey Report, compiled by the National Cotton Council, revealed that cotton insects destroyed 1,430,000 bales of cotton and 585,000 tons of cottonseed, valued at $261 million.

Shortcomings in Research. Weeds and diseases also make a tremendous drain each year on productive resources that are used for cotton production, said J. D. Fleming, Oklahoma Cotton Ginners Association. The industry urgently needs more scientific facilities and programs that will put it on a more equal footing with competitors, he asserted.

The chemical fiber industry, said Fleming, spends many times more money on utilization, production efficiency, and quality than does the cotton industry.

Fleming emphasized that shortcoming of cotton have their parallels throughout American agriculture. Less than 5% of the Federal Government's $2 billion allocation for scientific development is for agriculture.

"From 3% to 5% of the dollars we collect from sales of agricultural chemicals is plowed back into research," said W. W. Allen, Dow Chemical, and president of the National Agricultural Chemicals Association. This amounts to $9 million a year in research for agricultural chemicals alone.

Outlining American industry's contribution to agricultural research, Allen said the estimated cost of developing a single insecticide is approximately $1.5 million. This cost includes research to synthesize the compound and run preliminary screening tests, $500,000 for testing in the field, and construction of a pilot plant in which to produce enough for large-scale testing of small quantity sales. These and other costs, he emphasized, run the total expense up quickly. Thousands of chemicals are screened, but less than one in 5000 passes to the next stage.

On the Cover

Pesticides in the Tropics

Banana plantation laborer applies Bordeaux mixture from a stationary spray system to control a fungus leaf spot known as Sigatoka. Central pumping station supplies the spray material, which must be applied 16 times or more a year, to a grid-like pipe system on top of the ground with take-offs for attaching hose.

Photo, Courtesy United Fruit Co.