# Ag and Food Interprets . . .

- **Court decides gypsy moth case in favor of Government**
- **Nitrogen solutions show enormous gains in 1956-57 fertilizer year**
- **Transportation costs squeezing out pesticide dusts and clays**
- **Congress unlikely to get much accomplished on farm problem**
- **Davison executive urges joint fertilizer promotion campaign**

## Gypsy Moth Case

### Court refuses to enjoin mass spraying of DDT, calls spraying a proper use of police power

". . . I hold that the mass spraying has a reasonable relation to the public objective of combating the evil of the gypsy moth and thus is within the proper exercise of the police power by the designated officials."

This was the conclusion reached by Federal District Judge D. J. Bruchhausen on a case that has commanded the attention of New Yorkers and many other interested parties—especially the pesticides industry—for the past several months. The decision was in a case called Robert Cushman Murphy, et al. and Archibald B. Roosevelt, et al. vs. Ezra Taft Benson (U. S. District Court, Eastern District of New York, Civil No. 17610). To most people, however, it is known simply as the gypsy moth case.

#### *Three Weeks of Testimony*

Last June, the plaintiffs had asked the Eastern District Court for a preliminary injunction to prevent federal and state authorities from going through with their plans to spray Long Island. The petition for a preliminary injunction having been denied, the spraying was completed as planned. The petition for a permanent injunction went to trial late last winter, and the judge, sitting without a jury, took expert testimony for over three weeks.

Much of the 24-page opinion handed down June 23 dealt with Judge Bruchhausen's evaluation of the expert testimony, and it is this part of the decision which will doubtless make the most interesting reading for experts in the pesticides field.

The opinion cites plaintiffs' contentions that DDT is deleterious to health; that spraying causes considerable loss of birds, fish, bees, and beneficial insects; that DDT injures living plants, and that plants absorb it from the soil and transfer it to edible parts, making them unfit to eat; that the spraying is damaging to persons and property; that the statutes under which the authorities acted did not empower them to conduct mass spraying, and that if the statutes did authorize them to spray then the statutes were in conflict with the due process clause of the Constitution.

#### *Bias of Some Experts Noted*

On the question of whether DDT is a chemical deleterious to health, Judge Bruchhausen noted that the plaintiffs presented no evidence that they or anyone else had been made ill by the DDT spraying. But, he said, "a real difficulty presents itself in coming to a definite conclusion as to the over-all effects of the chemical." It has not been in use long enough to evaluate it definitely, he said, and there are very few experts possessing the requisite broad and intensive experience with it. Also, he added, the expert testimony must be scrutinized in the light of some experts' strong preference for organic farming and/or biological control, which may influence their judgments.

Of Dr. William C. Martin, who testified for the plaintiffs that DDT has a harmful effect on elderly people, the judge said that Martin's experience does not seem sufficiently broad and intensive to warrant acceptance of his conclusions. "There is no evidence that he has distinguished between massive doses of DDT or exposure indoors as compared with the spraying of it in adulterated form of one pound per acre . . ."

Of Dr. Malcolm M. D. Hargraves, Mayo Clinic medical consultant whose testimony that the spraying of one pound of DDT per acre is deleterious to health was widely publicized in newspapers, the jurist said: "While the witness is a physician of long experience, he has not indicated sufficient knowledge of the effects of DDT for acceptance of his opinion."

Concerning Dr. Granville Knight, a California nose, throat, and nutrition expert, the decision states: "While the witness has read considerable literature and attempted to keep himself informed on the subject, his testimony consists largely of generalities and is not helpful. In fact, he states that the subject is rather new and that absolute proof is lacking. He conducts an organic farm." Dr. Knight testified that DDT adversely affects people suffering from liver ailments, and that even small amounts may affect hypersensitive individuals.

A fourth expert witness for the plaintiffs, Dr. Francis M. Pottenger, Jr., a California nutrition specialist, testified that he had examined the fat tissues of a number of patients and that the average patient in 1957 had absorbed more hydrocarbon than was the case in 1950. Said the judge of this testimony: "There is no evidence that he performed autopsies or examinations to ascertain causes of death nor that he made studies of persons subjected to a spray of one pound of DDT per gallon per acre. Furthermore, the witness fails to indicate the

nature of the exposure of his patients to DDT and its concentration."

### Impressed with Dr. Hayes

In sharp contrast was the court's evaluation of the government's expert witnesses, chiefly Dr. Wayland Hayes, whom the judge referred to as apparently "the only living physician in this country, who has engaged in experimental work as to the effect that DDT has on human beings." Says the judge:

"I was strongly impressed with this witness, especially because his opinions are supported by actual tests with measured amounts of DDT and by his scientific evaluation of the results."

Dr. Hayes had testified that feeding DDT to a group of men at the rate of 35 mg. per day (an amount 200 times more than that consumed every day by persons eating restaurant meals) produced no ill effects after a year. He also told the court that there is no evidence that some people are sensitive to DDT or that it causes liver damage. He also testified that while DDT may cause illness if ingested in massive doses, there is no danger to health in a spray of one pound per acre.

### Damage to Health Not Established

The court concluded, after this analysis, that plaintiffs had failed to establish that the gypsy moth spraying was injurious to health.

Only a few fish and birds were killed in the Long Island area, the judge said, but not enough to sustain the claim that spraying causes *considerable* loss of birds, fish, and beneficial insects. Aquatic insect loss in the sprayed area was probably made up by repopulation in a short space of time, the judge said. There was no proof that DDT injures plants as living organisms nor that plants absorb it from the soil and transfer it to edible portions.

The judge felt the plaintiffs' major complaint was of annoyance rather than damage. He conceded that spraying of heavily populated Long Island presented a somewhat different situation from that in other less populated areas. But, he said, few residents were affected, because the spray operations were conducted in the early hours of the morning.

Turning to the legal questions, the judge cited the Federal Statute [7 & U. S. Code 147(a)] which provides that the Secretary of Agriculture either independently or in cooperation with states may carry out operations to eradicate, suppress, control, prevent, or retard the spread of the gypsy moth, and that a cooperating state shall be responsible for the authority necessary to carry out the operations or measures on all lands and properties within the state. Then he cited New York statutes which empower the Commissioner of Agriculture of the State of New York to take such action as he finds necessary to control or eradicate any injurious insects existing within the state. The New York Agricultural and Markets Law states that such actions are to be deemed as exercise of the state's police power.

### Valid Use of Police Power

Whether or not the gypsy moth spraying is a valid exercise of the state's police power was the principal issue of law in this case. Although valid use of police power is not specifically definable, the judge said, other than that it must be in the public interest or convenience, its exercise must be reasonable in relation to the evil which it is designed to combat, and it must be neither arbitrary nor discriminatory. Private rights may be abridged by police power, and they must give way to the public interest. The fact that the plaintiffs had unfortunate and disagreeable experiences in the process does not outweigh the element of public interest. He concluded that the evil of the gypsy moth is such that the public interest was served by an attempt to eradicate or control it. Mass spraying with DDT, the court said, has a reasonable and substantial relation to the object sought—eradication of the gypsy moth.

Since the authorities acted in a manner authorized by law, the court would not grant the injunction, without a clear showing that there was danger of irreparable loss that was both great and immediate. This, he held, the plaintiffs did not show.

### Decision to be Appealed

The decision is somewhat academic at this point, since present indications are that it will not be necessary to spray Long Island from the air this year. However, the plaintiffs' counsel has announced that the case will be appealed. He believes the decision was wrong, and that DDT is a poison. The *New York World Telegram & Sun*, which for the past year has been carrying almost daily stories calling DDT a poison, said editorially: "We believe the losers in this important test case should appeal, and we hope they do." The same editorial accused Judge Bruchhausen of brushing aside the evidence presented by plaintiffs on the health question as untrue or wholly exaggerated. Instead, it said, "he relied decisively on the denials and minimizations of government witnesses."

### USDA Reaction

In response to the decision, M. R. Clarkson, USDA, made the following statement:

"The successful 1957 spray program against the gypsy moth in Pennsylvania, New Jersey, and New York—like similar programs against this and other insects undertaken elsewhere by the Department—was conducted at the invitation of the states concerned and with their full cooperation.

"The methods used in all such programs in which the department engages are based on many years of research and wide experience in pest control. The programs have as their sole aim the protection of the economy and resources of the United States and its citizens.

"These cooperative insect control operations must be established on a sound legal as well as scientific basis, and they must be conducted with conscientious regard for both the public welfare and the rights of individuals.

"We welcome the important decision of the Federal District Court in Brooklyn as recognizing the campaign of 1957 against the gypsy moth in New York as meeting these high standards. We are confident that the other insect control and eradication programs in which the Department is now engaged, likewise serve national and state interests, aid agriculture, and protect the property of individuals without encroaching on private rights and privileges."

The final outcome of this case, even though it is now largely academic, may well have far-reaching implications for the pesticides industry and

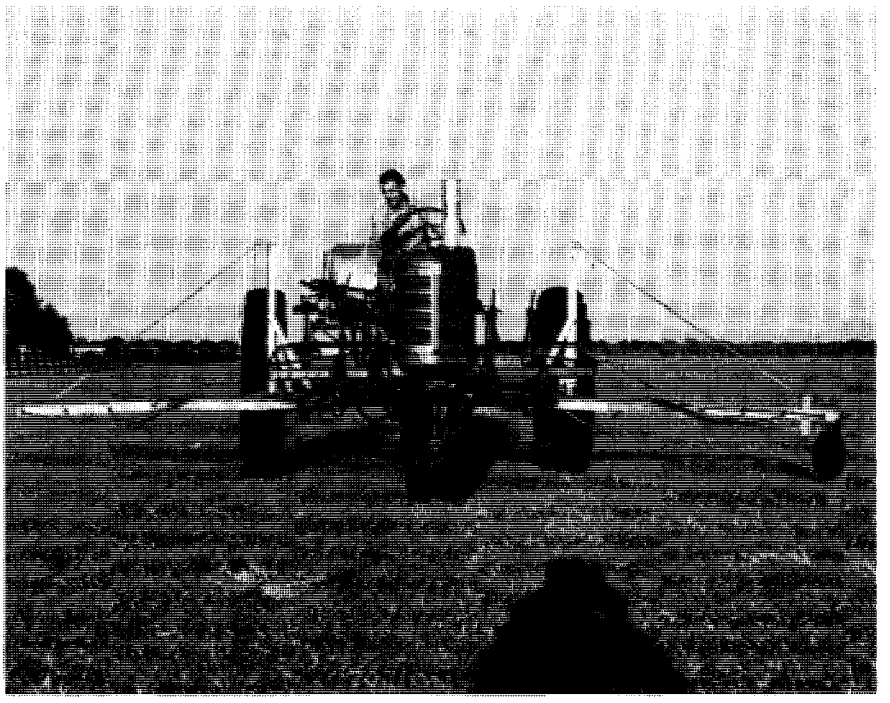
## Correction

In its April issue, page 259, AG AND FOOD made International Minerals and Chemical Corp. appear more optimistic than it actually is regarding probable future potash demand. The company's estimate of growth in total tons of potash product was reported as tons of $K_2O$. According to vice president Nelson C. White, head of IMC's potash division, the company expects potash demand to grow about 4%, or 100,000 tons of $K_2O$, per year. At this rate, annual demand four years hence would be about 400,000 tons of $K_2O$ (or roughly 700,000 tons of potash product) greater than it now is.

for the sciences of chemistry and entomology. It will therefore be watched by many with great interest.

# Fertilizer Use, 1956–57

## Scholl report shows fertilizer use on the increase again. Nitrogen solutions gain 125%



Nitrogen solutions made a big hit with farmers in the Southeast during 1956–57

NITROGEN SOLUTIONS for direct application skyrocketed to a total of 245,878 tons (up 125%) in 1956–57. That is the stand-out fact in USDA's annual report on fertilizer use, released late last month. On a primary nutrient basis, nitrogen solution use was up 118%. Popularity of solutions probably took the steam out of some other direct-application nitrogen materials, slowing down their growth, but they nevertheless showed impressive gains, also. Urea use, for instance, was up 18%, a solid gain but not so exciting as the 35% increase it registered in 1955–56 over the previous year. Anhydrous ammonia racked up an 8% gain, compared with 18% the year before; and aqua ammonia was up 23%, compared with 34% the year before. Ammonium sulfate use was up nearly 25%, and ammonium nitrate was up 17.5%.

The increased use of nitrogen solutions and aqua ammonia was general throughout the country, with only the Middle Atlantic States using less. The South Atlantic States, principally the Carolinas, took nearly three times as much liquid nitrogen materials as they did in 1955–56, tonnage increasing from 27,358 tons to 75,941. East North Central States doubled their nitrogen liquids use—for a 40,435-ton total. A five-times increase was registered in the East South Central States, but their total was only 9112 tons. The greatest tonnage gain was in the Pacific States area, which upped its consumption by 73,000 tons for a total of 331,319 tons, and accounted for nearly 60% of the total of 555,299 tons of nitrogen solutions and aqua ammonia sold for direct application in the continental U. S.

Total fertilizer use went back up again in 1956–57, after the 1955–56 decline. Total tonnage was 22,709,011, including 943,243 tons of the so-called secondary and trace nutrients. The over-all total was 515,041 tons more than in 1955–56, but it did not quite match the record year of 1952–53, when more than 23 million tons was shipped. However, 1956–57 did set a new record in terms of primary nutrients—6,377,541 tons, an increase of 5.3%. Tonnage of fertilizer containing the three primary plant nutrients was up 1.7%, and secondary and trace nutrient fertilizer tonnage was up 19.5%.

The consumption increase was general throughout the country, except in the southern states—the South Atlantic, and the East and West South Central States. Biggest increase was registered in the Mountain States, which took 19.4% more fertilizer than they did in 1955–56. California was again the best fertilizer customer, on a tonnage basis, with its total of 2,128,138 tons. Montana showed the greatest gain in fertilizer consumption in 1956–57, on a percentage basis, with a total of 43,920 tons, compared with 32,968 tons in the year before.

Total nitrogen use, in terms of N, increased 10.4% in 1956–57 to a high of 2,135,287 tons. Available $P_2O_5$ was up 2.5% to 2,303,991 tons; and $K_2O$ was up 3.4% to 1,938,263.

### *Mixture Results*

Total tonnage of mixtures sold in 1956–57 was down 0.5% to 14,702,807 tons, but the mixtures supplied more primary nutrients than they did the year before. On a primary nutrient basis, mixtures sold were 2.5% ahead of the year before. They supplied 67.6% of the total tonnage of primary nutrient fertilizers: 39.5% of the N, 78.8% of the total available $P_2O_5$, and 86.8% of the total $K_2O$.

In 1956–57, 5-10-10 retained first place among various grades in total tonnage used. In 1955–56, it had beat out 3-12-12, previously the best seller for six consecutive years. In 1956–57, 3-12-12 dropped another notch to third place, being nosed out for second place by 4-12-12. The top 15 mixtures listed in the order of tonnage sold for the two years are:

| 1956–57 | 1955–56 |
|---|---|
| 1. 5-10-10 | 1. 5-10-10 |
| 2. 4-12-12 | 2. 3-12-12 |
| 3. 3-12-12 | 3. 4-12-12 |
| 4. 5-20-20 | 4. 5-20-20 |
| 5. 10-10-10 | 5. 5-10-5 |
| 6. 12-12-12 | 6. 10-10-10 |
| 7. 5-10-5 | 7. 4-16-16 |
| 8. 3-9-9 | 8. 12-12-12 |
| 9. 4-16-16 | 9. 3-9-9 |
| 10. 2-12-12 | 10. 4-10-7 |
| 11. 6-12-12 | 11. 2-12-12 |
| 12. 4-10-7 | 12. 4-10-6 |
| 13. 0-20-20 | 13. 3-9-6 |
| 14. 6-8-8 | 14. 6-12-12 |
| 15. 3-9-6 | 15. 0-20-20 |

Those top 15 mixtures in 1956–57 accounted for 62.1% of the total tonnage of mixtures sold.

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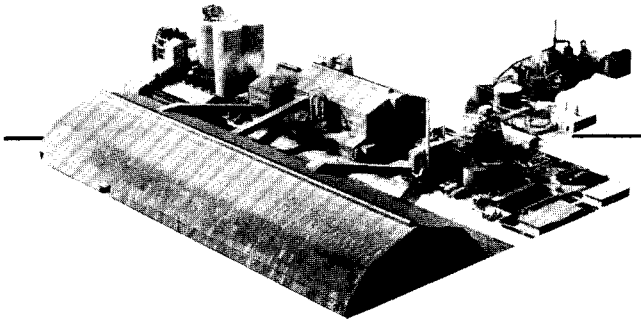

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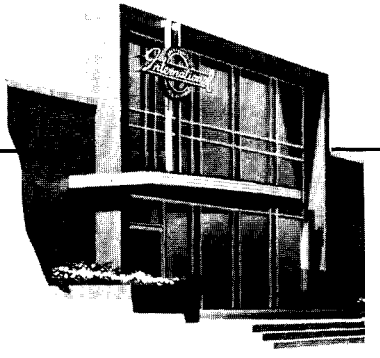

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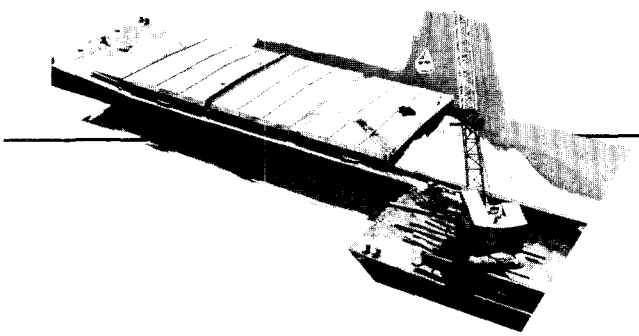

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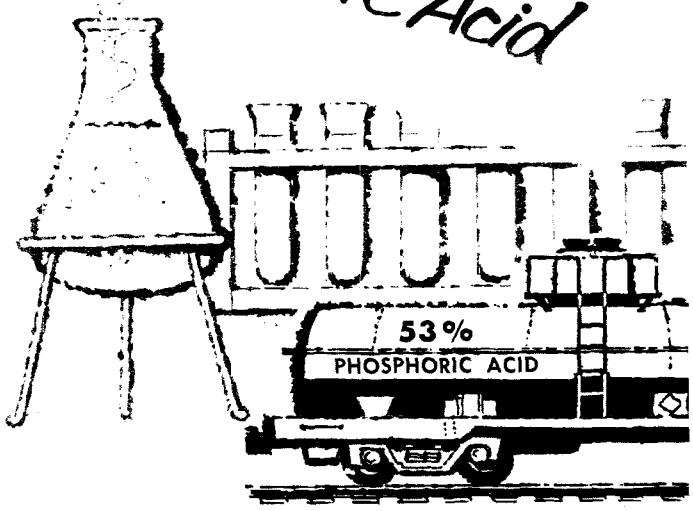


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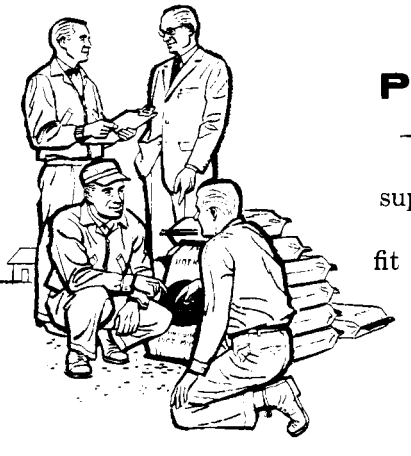
**Names provided upon request.*



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The national weighted average of the primary nutrients contained in mixtures was 5.74% N, 12.36% available $P_2O_5$, and 11.44% $K_2O$, a total of 29.54%. The corresponding values in the previous year were 5.39, 12.08, 11.20, and 28.67%.

### *Direct Application Materials*

Total consumption of fertilizer materials for direct application was 8,006,204 tons, an increase of 7.9% over 1955–56. This figure includes the 943,243 tons of materials containing secondary and trace nutrients. Direct application materials that furnish N, P, or K showed an 11.9% increase in tonnage on a primary plant nutrient basis. Direct application fertilizers represented 35.3% of all fertilizers used, compared with 33.4% for the preceding year.

The total consumption of direct-application phosphate fertilizers declined by 62,352 tons (2.5%) to 2,415,963 tons, but in terms of available $P_2O_5$ there was an increase of 5.4% to 487,366 tons. The principal changes were in the use of colloidal and phosphate rock which was 94,731 tons (10.2%) lower, with decreases of 52,786 tons in Illinois and 35,339 tons in Missouri accounting for most of the change. The 22%-and-under grades of superphosphate decreased 47,028 tons (7.7%) from 1955–56 levels. But grades of super containing over 22% $P_2O_5$ increased 48,246 tons (14.8%). Some of the newer phosphate materials for direct application showed remarkable percentage increases, although their total tonnage is far below that of super. Ammonium phosphate (11-48) was up 33% for a total of 30,997 tons on an available $P_2O_5$ basis; ammonium phosphate nitrate (27-14) use was up 89% for a total of 1595 tons; diammonium phosphate use gained 41.8% for a total of 10,667 tons; and phosphoric acid was up 25% to 9400 tons.

Direct application potash materials showed an impressive gain of 13.8% for a total tonnage of 460,899. On a $K_2O$ basis, the tonnage was 255,802, an increase of 16.4%. On a $K_2O$ basis, here is the lineup on the principal potash materials:

| | Total Tons | % change |
|---|---|---|
| Potassium chloride | 227,400 | 16.8 |
| Potassium sulfate | 13,546 | 4.8 |

### *Prospects for 1957–58*

USDA's annual "Fertilizer Situation," published recently, estimates that the supply of nitrogen available for fertilizer manufacturers totaled 2.4 million tons of N in the year just ended. This is about 5% above that in 1956–57. The same source estimates the net quantity of $P_2O_5$ available for fertilizer use was 2,235,000 tons, 4.3% less than in 1956–57. Potash delivered to the fertilizer trade was expected to be 6.7% less than in 1956–57. The final figure, USDA estimates, will be about 1,871,000 tons of $K_2O$.

# Distribution of Diluents, Carriers

## High freight rates changing marketing pattern of agricultural clays and dusts; more wettable powders foreseen

A NEW TREND has appeared in the marketing structure of solid diluents and carriers for pesticides. High freight rates have made distant deliveries of low-priced, bulky, dry powders definitely uneconomical.

This means that local or regional producers—having less of a freight problem—are in many cases stepping in to establish new supply patterns in areas distant from the mines of national distributors. Some industry people feel that the marketing changes have already been reflected in finished pesticide formulations, but their evaluations of the net effect vary all the way from "lower costs, or at least no increase, and lower quality" to "some increase in cost but also an improvement in quality."

The market for this group of agricultural-chemical raw materials is variously estimated to be $300 million to $500 million per year. Most of the production and distribution changes are occurring among the lower priced diluents where freight charges make up a considerable portion of final costs. These are chiefly "inert" silicates (talcs, pyrophyllites) and clays (kaolins), which sell for $12 to $15 per ton f.o.b.

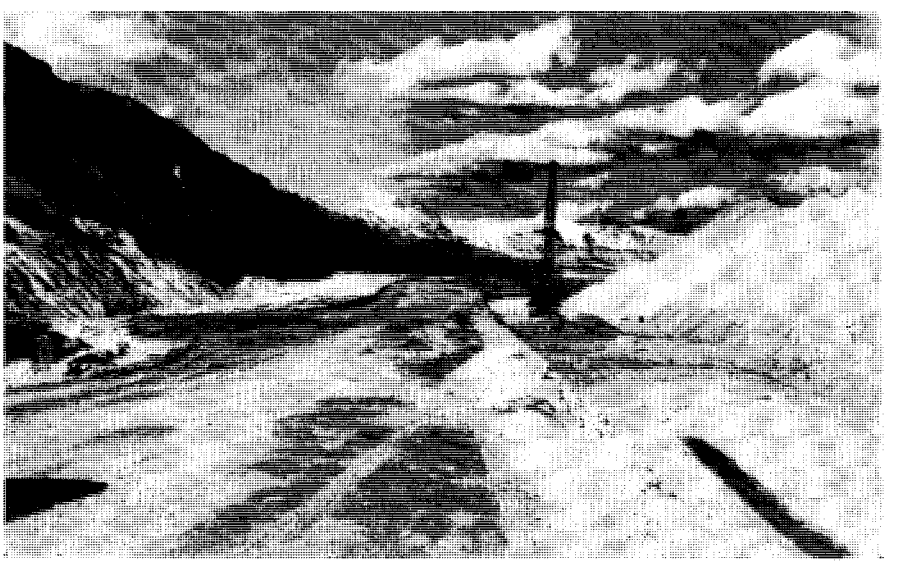
Carbonates (ground limestone), too, are important in this market and offer appreciable advantages in price—as low as $7.00 to $8.00 for soil-sweetener uses, somewhat higher in diluent grades. They enjoy lower freight rates because of limestone's basic role as an essential agricultural commodity.

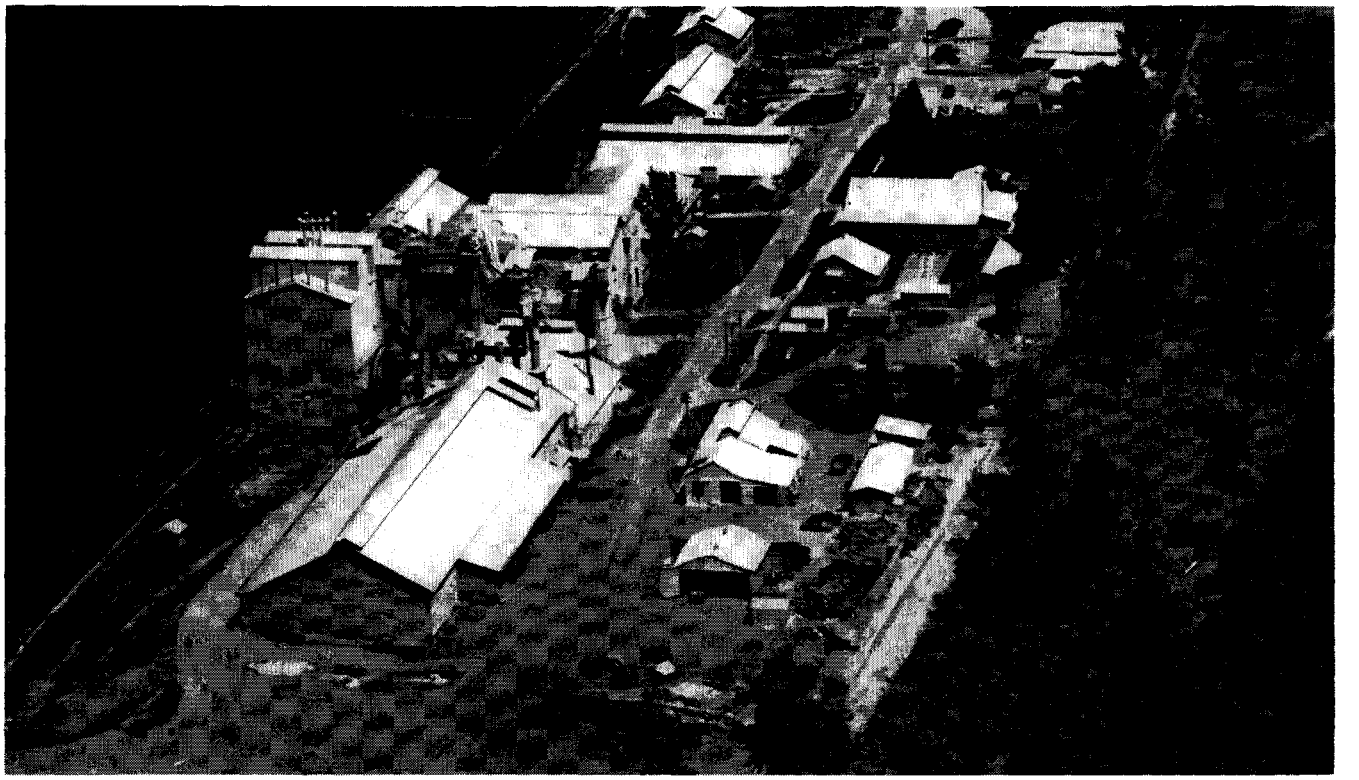
No figures are available on the use of limestone specifically as a pesticide diluent, but talcs and pyrophyllites share an annual market of about 100,000 tons for this application. Also, some 20,000 tons of kaolins, about half the agricultural supply, serve as diluents for dry-powder blending of insecticides and fungicides.

### *Biggest Diluents: Talc, Pyrophyllites*

In general, particle sizes of talcs and pyrophyllites are relatively large. Both minerals are based on a crystal lattice which gives layer units that stack one upon another. With little binding force between, they form soft, easily fractured particles. The dense,

Large workings characterize the typical attapulgite mine





Attapulgite processing plant of Minerals & Chemicals Corp. at Attapulgus, Ga.

nonporous particles give a low surface area—only that of the external surface of the plates themselves. Sorptive capacity, directly proportional to surface area thus is indirectly proportional to particle size for these materials. Consequently, their use is limited for the most part to the role of diluents or extenders rather than of primary carriers. The large, dense particles of mica make this material especially attractive for aerial application.

Kaolin clays are finer in particle size than talcs and pyrophyllites, though similar in lack of internal porosity, and their sorptive capacity is greater. This permits making formulations with higher contents of liquid or amorphous agricultural chemicals. Also, agglomerates of kaolin fines can be readily dispersed in either water or air; this property makes these clays particularly useful for wettable powders and dust concentrates. An inherent pesticidal quality in fine kaolin dusts seems to be due to physical rather than chemical properties.

### *Carriers Have Internal Porosity*

Carriers, on the other hand, are usually high-quality clays possessing high surface adsorbency and uniform properties. They range from $14 to about $160 per ton, and include the other half of agricultural kaolins, plus well over 100,000 tons yearly of montmorillonites (bentonites) and attapulgites (fuller's earth), some expanded vermiculite, diatomite, and a small volume of synthetic silicas and silicates. All have relatively high sorptive capacity.

Usually, molten or dissolved organic insecticides are sprayed into or otherwise intimately mixed with the surface-active minerals to form concentrates. These are later extended with less expensive dusts to usable strength. Wettable-powder concentrates are, of course, diluted in water for spray application. For granulated products, granules of carrier material are coated or impregnated with technical grade toxicants.

### *New Market Picture Heralds Changes*

National distributors are reacting to the new market picture in several ways. Some are pulling in their reins in areas in which they face a competitive freight disadvantage. Some who have diversified into other industries are considering abandoning their unprofitable agricultural activities and directing their time and money into more rewarding channels.

Others are continuing to offer the materials in question to maintain a complete sales line, but they admit losing some diluent business in distant areas because of the freight differentials. Frequently these differentials run $5.00 or higher per ton, compared with local or regional substitute materials. Freight costs can sometimes be reduced, however, by such means as having customers' trucks—deadheading back home from areas in which the distributors' warehouses or processing plants are located—pick up their own loads of the diluents.

But one major diatomite producer finds its situation improved somewhat—its "price disadvantage," as compared with competitive materials, is reduced in the West Coast area where its production facilities are located. And a national distributor of other carriers has noticed no effect; it has 40 processing plants coast-to-coast and is not too worried about long hauls.

In the case of fuller's earth, a recent reclassification has considerably lowered the freight rate—previously higher than that for clay. (One firm in the Southwest says this amounts to a 20% reduction in freight costs for its marketing area.) And attapulgite producers are taking advantage of this improvement.

### *Push on "Quality," High Toxicant Content*

But most of the national marketers who make their own products and who

have remained in the picture are placing more emphasis on their higher-grade carriers. They are trying to sell "quality," intensifying efforts in behalf of better finished insecticides. Some are broadening their sales coverage to build up sagging markets. Others are increasing technical studies for better basic understanding of sorption, flowability, and other properties of powdered solids. All would welcome "more attractive" freight rates.

The big push among carrier suppliers is directed toward concentrates of higher toxicant content. These offer economies both to the local blenders and to the consuming farmers.

Another angle is being pursued by a maker of synthetic calcium silicate. This high-priced material ($140 per ton) is being promoted to up-grade local low-cost inerts and let them compete with higher-quality clays like attapulgites. The mixture obtained by adding small quantities of the highly adsorptive premium silicate to diluents or carriers costing $20 per ton or less is said to compete favorably with $35 to $40 clays.

### *More Wettables Coming*

Within the next few years further changes in markets for solid diluents and carriers are foreseen. First there is a general feeling that the present trend toward higher pesticide content in finished formulations will continue. This will call for more high-quality diluents in both dry dusts and water-dispersible mixtures.

Equally widely held is the belief that wettable formulations are gaining in favor at the expense of dusts. "The dust-producing segment of the industry must emphasize quality to survive," says one large firm, which looks soon for an "evolving trend" in the marketing situation to reflect this.

Steady growth is expected to continue in the area of wettable mixtures. This would mean little increase in demand for low-cost diluent materials. But the need for quality carriers—vital for wettable powders—should therefore continue to expand.

**Minerals Used with Insecticides (Short Tons)**

| | 1956 | 1955 |
|---|---|---|
| Talc and soapstone[a] | 54,793 | 63,472 |
| Pyrophyllite[a] | 43,132 | 54,329 |
| Kaolin | 40,240 | 39,712 |
| Bentonite | 18,847 | 16,466 |
| Fuller's earth | 114,427 | 91,039 |
| Agricultural lime[a, b] | 228,313 | 262,753 |

[a] U. S. Bureau of Mines figures
[b] For all agricultural uses

# Congress on Farming

## Congress and USDA go a few rounds on farming, but it's only a warm-up match

CONGRESS is not likely to do much about farming this year. With sights set on early August adjournment, it no longer has time to legislate major issues.

Official Washington, however, did spend some time on agriculture last month: Congressional committees worked on farm programs, and the President signed a bill appropriating $3.2 billion to keep USDA in business for another year. The funds granted USDA are about $130 million short of what the department requested.

The House Agriculture Committee approved an "omnibus" farm bill. Its provisions, though, were just what the Administration did not order—tighter controls on many commodities. So "out of tune" was the bill, Agriculture Secretary Ezra Taft Benson called it an "economic monstrosity." He objected strenuously to its close controls on wheat and dairy products. Benson told representatives of the dairy industry passage of the bill would extend the "deadly" hand of quotas to them.

Finally, the House decided to bury its omnibus bill, leaving the Senate to initiate any new farm bills for this year.

The Senate Agriculture and Forestry Committee has a farm controls program ready. And this bill is more to Benson's liking. It calls for:

- A two-price plan for wheat, with domestic wheat supported at 100% of parity.
- Corn and feed grains combined in one program, supported at 80% of of parity.
- Acreage controls and price supports for rice.

Action on this bill in the Senate is possible, but time will be the deciding factor in getting it processed and passed by both houses before adjournment. The fact that controls are covered in a separate bill may help speed it on its way.

### *Surplus Crops Exports*

The Senate has already sent to the House a bill which would extend USDA's surplus crops export program for another year.

USDA says delay by Congress in renewing this authority has already caused it to lose out on large summer contracts for surplus crops. And further lost time will only create backlogs and jam shipping schedules.

Prompt action on a bill approved by both the Senate and House is needed, according to USDA, if farmers are to receive the full benefit of this effective means of stimulating exports over usual levels.

### *Crops Utilization*

In a third bill, the Senate asks for a government program to develop new uses for farm produce and new crops to replace those now in surplus production.

The crops utilization bill is based on recommendations of the President's Commission on Industrial Uses of Farm Products, headed by J. Leroy Welsh. This report calls for a new government agency to carry out the program, and both the Administration and USDA object. They want USDA to control crops research and development within the present department.

Most members of Congress who testified at hearings on the Senate bills agree with the Welsh Committee on the advantages of a separate agency to handle crops research. They believe USDA is not equipped to do the product development and market research needed to get new crop-based products and processes out of the laboratory and into commercial production. Some congressmen even suggest the Commerce Department is better able than USDA to take over the program, should the separate agency plan fall through.

Although the Senate Agriculture Committee could act on the crops research bill before Congress adjourns, most officials believe its passage would still be put off until next year.

### *Farmers Prosper*

Meanwhile USDA reports that farmers, without new government aid, look somewhat more prosperous today than they have at any time since 1953. Farm prices are up, income is up, and production is set to break records. The general public, able to resist most durable goods, has continued to buy great quantities of food during the recession.

Farmers had been fighting low prices for several years. But this spring, shortages that developed during the severe winter jumped prices

of most farm products above those of 1957. Cattle, hogs, eggs, fruits, potatoes, and vegetables sold at high prices until last month. Now they have started to ease. Cotton, favored by a high support price this year, has been further strengthened by growers' placing of large acreages in the Soil Bank. The only major farm prices on the down side so far this year are those of wheat, tobacco, and soybeans.

Farmers' receipts from livestock are up 12% over those of 1957 because of better prices and delays in getting animals to market. USDA now says that meat supplies are also catching up with demand, and some prices have already started to drop. Prices of steers ready for marketing, it expects, will stabilize at 1957 levels during the summer. But hog prices will remain high until later in the year.

Over-all, USDA estimates farmers will end up 1958 with an increase of 5% in net income over 1957. Income per farmer will also be better than it was last year. This improvement comes both from the higher income and from new increases in the size of farm units.

Farm production and maintenance costs are still going up, but not enough to make farming unprofitable, USDA finds. Costs are now at an all-time high, about 4% above a year ago. Largest increase this year is in the price of feeder livestock, up 25%. Farm mortgage interest, machinery, taxes, motor vehicles, feed, and supplies cost more than they did last year. But farmers are paying a little less (about 2%) for building supplies, seed, and fertilizer.

### *Record Production*

If the weather continues good, USDA says, farm production this year will break records. Heavy snows and spring rains have ended problems of drought in the Midwest and West. Even in the South, where cold and excess rain delayed spring planting, there is a chance of recovering with good crop yields.

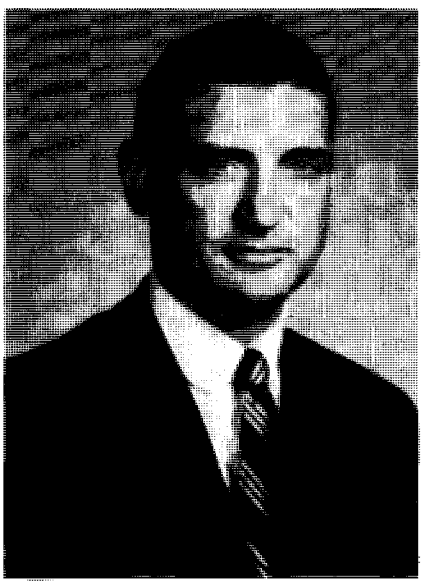
USDA predicts bumper crops of wheat (over a billion bushels), and the best grazing and hay crops in over 30 years. In heavy-producing areas, crops of corn, oats, sorghums, and soybeans promise to be good. Vegetable and potato prospects have improved since spring, and cattle and hog marketings will be heavy.

Later this year, though, farmers will have to face one gloomy fact: Surpluses worth $5 billion will have to be moved to make way for an even larger harvest expected in 1959.

# Joint Advertising For Fertilizers

## NPFI hears proposal for an industry-wide advertising and sales promotion campaign

STILL GREATER promotional activity—and budgets—may well lie ahead for the fertilizer industry. At last month's third annual convention of the National Plant Food Institute, held at the plush Greenbrier Hotel in White Sulphur Springs, W. Va., W. E. McGuirk, Jr., called for a new and more powerful "unified selling effort" to improve understanding of commercial fertilizers on the part of farmers. McGuirk, president of the Davison Chemical Co. division of W. R. Grace & Co., was chairman of the NPFI's special study committee responsible for evaluating the conclusions of the Institute-sponsored National Analysts study on farmers' attitudes toward the use of fertilizer (AG AND FOOD, April, page 266).



William E. McGuirk, Jr.

The study indicates, McGuirk declared, that individual advertising efforts by companies in the industry have "measurably failed," as witnessed by the fact that over 50% of farmers do not even grasp the terms used to describe fertilizer, much less understand how the use of fertilizer can make more money for them.

Charging the industry with having been unwilling to get out and dig to solve its sales problems, McGuirk cited statistics to show that current producing capacity of the industry is nearly double present fertilizer use. The industry has a terrific record in the manufacturing end of its business, he said. But its failure to do an adequate selling job leaves it with a static sales picture that is a poor match for its dynamic production performance.

One result of the industry's inadequate sales performance, he said, is a very narrow average margin of profit. In fact, he said, in most areas of this country if a 50,000-ton fertilizer mixing plant were destroyed by fire, it would be more profitable to collect the insurance and invest it in government bonds than to rebuild the plant and resume fertilizer production.

Pointing to these indications of need for a change, McGuirk proposed an industry-supported, industry-wide advertising program which would tell the basic story of fertilizers on a unified basis. Granted that no one company has the funds to put on an advertising campaign of the magnitude that is needed for the industry, said McGuirk, the only alternative is to devise an intensive joint program to be carried out through the NPFI.

The best talent in the country must be contacted, he said, to develop the plant food story and take it to the farmer. The probable costs of an across-the-board advertising and sales promotion campaign should be determined, and these costs should then be allocated on a tonnage basis to companies throughout the industry. "Look on this not as an increase in advertising expense," McGuirk urged industry members, "but a way to spend advertising dollars more effectively."

Observing that the degree of interest among NPFI members and others in the fertilizer industry will determine the success or failure of this massive communications job, McGuirk proposed that the institute take steps immediately to find out how many industry members would be willing to contribute on a continuing basis to the program's support. If those representing as much as 75% of the tonnage production of the entire industry showed interest, he said, the NPFI staff should then work out a proposal—with a separate budget—for this advertising program. The proposal should then be taken to both members and nonmembers for positive action, and action should be taken at the earliest possible moment, McGuirk added.

The fertilizer industry's ailments, according to McGuirk, have gone beyond the point of asking whether the patient likes the medicine; it can only ask whether that medicine will cure the ills.