

# Business Newsletter . . .

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## Groundbreaking under Legal Tension

**Central Farmers Fertilizer Co.**, which broke ground for its \$13.5-million installation at Georgetown, Idaho, will produce elemental phosphorus and convert it all to **calcium metaphosphate**. Latter will be shipped to Midwest for use in mixed fertilizers. **Monsanto Chemical** is watching proceedings closely, having filed lawsuits claiming the CFFC plant design embodies **process secrets wrongfully disclosed** by a former Monsanto employee.

## Additional Phosphate Reserves Charted

Phosphate rock property of **Stauffer Chemical** at Hot Springs, Idaho, has been proved to contain at least a **million tons of easily minable high grade phosphate rock** suitable for economic production of superphosphates; many times that tonnage of high grade rock is indicated, but not yet fully proved. Vast quantity of **lower grade phosphate shales** also has been proved. Latter could be beneficiated, or serve as raw material for **electric furnace phosphorus production**. No immediate exploitation is planned, since Stauffer's other phosphate properties are sufficient for its present needs.

## Nitrogen Price Rise; Delivery Zones Set by Spencer

Late spring produced **strong upsurge in demand for nitrogen**, to the extent that local shortages of ammonia, urea, other nitrogen materials were common. **Price increases have been announced by Allied Nitrogen Division, Monsanto, Spencer**, and others, covering anhydrous ammonia, ammonium nitrate, nitrogen solutions, and ammonium sulfate. In a departure from traditional practice of quoting prices f.o.b., freight equalized, Spencer has established a zone system for delivered-price quotations. Bulk of the company's marketing area falls into Zone 1. Six southeast coastal states (Mississippi through North Carolina) are in Zone 2.

## Captive Urea for Spencer

**Spencer Chemical** will soon be producing its own urea, in a small new plant at its Vicksburg, Miss., works. Plant is built, and is now going through final shakedown. Entire output of urea, reportedly scheduled to hit 10,000 tons per year, is earmarked for **captive use in nitrogen solutions**.

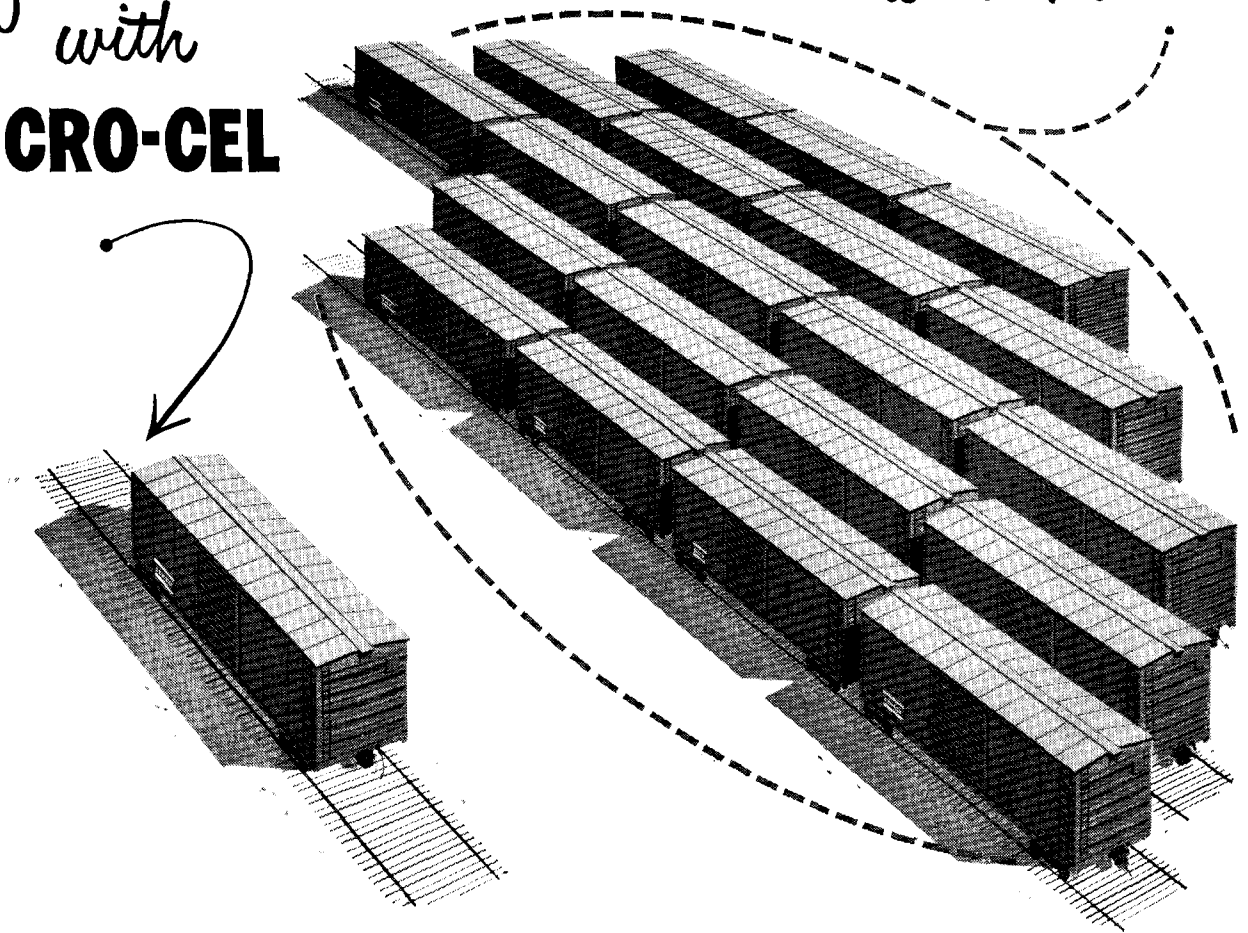


- NPFI votes big expansion of program for promoting fertilizer use, but there is a squabble over how to pay for it (page 483)
- Preliminary work indicates the enzyme pepsin aids early weaning of baby pigs, but it will take more research to confirm (page 484)
- Ground sulfur is still a large tonnage pesticide, but it is gradually losing ground to organics (page 485)
- Final figures on 1955-56 fertilizer year will give manufacturers and dealers help in tailoring their product line to market area (page 486)

This shipment of 50%  
Heptachlor concentrate  
formulated  
with

**MICRO-CEL**

—can provide  
application quantities  
like this



The advantages of formulating insecticide dusts at the higher concentrations obtainable with Micro-Cel\* is graphically demonstrated by the freight cars above. One car of 50% Heptachlor when let down to a 2½% poison at the point of application produces the equivalent of 20 cars of insecticide in the field. Since Micro-Cel costs no more than many other diluents, the substantial freight savings mean extra profits for you.

**PROVEN WITH MANY POISONS**

Micro-Cel, a new line of synthetic calcium silicates developed by Johns-Manville, has been tested and proven at such high dust and wettable powder concentrates as:

- |                    |                      |
|--------------------|----------------------|
| <b>75% DDT</b>     | <b>70% Toxaphene</b> |
| <b>75% Aldrin</b>  | <b>75% Dieldrin</b>  |
| <b>50% Aramite</b> | <b>50% Chlordane</b> |

Experiments with other poisons are under way today.

**IMPROVES FLOWABILITY**

Micro-Cel — "the powder that flows like a liquid" — reduces caking, increases flowability and gives more uniform coverage with dry dusts. Other important properties include large surface area, small particle size and high bulking action.

Ask your Celite engineer to help you adapt Micro-Cel to your particular requirements, or mail coupon below.



\*Micro-Cel® is Johns-Manville's new absorbent-grinding aid designed specifically for the insecticide formulator.

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**MICRO-CEL**

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Please have your local representative contact me.

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Address \_\_\_\_\_

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# Research Newsletter . . .

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## **Injecting Aqua Ammonia Into Soil**

Hawaiian sugar growers whose plantations are not irrigated are trying out a method for **injecting aqua ammonia directly into the soil**. They are applying aqua on both sides of each cane row 2 to 3 inches deep on wet soils, 5 to 10 inches deep on dry soils. Because **aqua is inexpensive and less subject to leaching** than nitrate forms of nitrogen, sugar growers have been quick to put research results (reported in *Soil Science Society of America Proceedings*, May-June 1957) into practice.

## **DES Has Bacteriostatic Effect**

Michigan State researchers find **diethylstilbestrol has a bacteriostatic effect**, theorize that its **success in stimulating growth may be due to its action on intestinal organisms** as well as its hormonal effects. If so, they figure feeding it may be better than implanting. Meanwhile, **DES is continuing to show good results in animal feeding experiments**. Eli Lilly reports DES has improved feed lot performance of lambs, pasture feeding of cattle, and feed efficiency of heifers. Purdue researchers report feeding of DES to heifers without undesirable side effects, but at higher levels of implanted DES, undesirable side effects did result. With fattening steers at the University of Illinois and at Kansas State, DES implants gave a daily weight gain of 0.4 pounds over that of controls, while Synovex implants gave a daily weight gain of 0.22 pounds over that of controls.

## **Tranquilizers in Feeds?**

The toll that stress takes each year in livestock production is expected to prompt a number of studies on the effect of **feeding tranquilizing drugs** to animals for increased feed efficiency. Recently, Damon Catron of Iowa State estimated that **losses due to stress run somewhere between 25 and 30% of total production**. Defining stress as "any adverse physiological condition which prevents the animal from reaching his maximum genetic potential," he enumerated some stress factors such as overeating, poor sanitation, chilling, overcrowding, scouring, castration, cold floors, and dampness.

## **Curbing Decomposition of Vapam**

Stauffer research has found **a way to retard decomposition of sodium-N-methyl dithiocarbamate**, the essential ingredient in its Vapam soil fumigant. Aqueous solutions of the chemical decompose on storage, developing a strong lachrymatory odor. A small percentage of **aliphatic primary amines**, the preferred ones being methyl, ethyl, propyl, and butyl, curbs decomposition.

## Spotlight

- Coastal Bermuda grass can take heavy nitrogen fertilization with only a temporary accumulation of nitrogen compounds considered toxic to livestock (**page 506**)
- Only low levels of unchanged toxicant were found in blood and milk of cows fed Diazinon labeled with phosphorus-32 (**page 509**)
- Di-(*p*-chlorophenyl)-(trifluoromethyl)-carbinol, a synergist that makes DDT effective against resistant houseflies, inhibits dehydrochlorination of DDT by dehydrochlorinase, but it also inhibits penetration of DDT through the fly cuticle (**page 519**)
- Lindane caused more pronounced changes in vegetable flavor than other chlorinated hydrocarbons; soil applications of insecticides produced more flavor changes than foliage applications; more undesirable flavor changes occurred in canned than in cooked or raw vegetables (**page 523**)