

Business Newsletter . . .

Acid for Diammonium Phosphate

Monsanto is building at the Pueblo plant of Colorado Fuel & Iron a **phosphoric acid unit** which will supply acid for CF&I's **production of diammonium phosphate**. First of its particular kind and size, the acid burner was engineered specifically to meet the needs of the CF&I coal chemicals operation. Built on CF&I property and operated by CF&I personnel, but owned by Monsanto, it will receive elemental phosphorus from the latter's Soda Springs, Idaho, plant; acid produced will be piped directly into the CF&I system for recovery of ammonia as DAP. A major **midwestern coke oven operator** also is switching from ammonium sulfate to **diammonium phosphate for ammonia recovery**.

Fruit-Drop Losses Reduced

Chemical sprays to retard fruit-drop are cutting preharvest losses of apples and pears from 20% to less than 6% in many orchards, says USDA. Four **plant-growth regulators** commonly used by growers are NAA (naphthaleneacetic acid), 2,4-D, 2,4,5-T, and 2,4,5-TP. NAA retards drop of essentially any commercial variety of apples or pears, and is the only compound suitable for airplane spraying, but is usually effective for only 10 to 14 days. The other three stop-drop-compounds will hold fruit fast three to four weeks after application, but are effective on fewer fruit varieties. **Average cost** of ground spraying an acre of large fruit trees: about \$4.00.

Insecticide Tolerance Set

Food and Drug Administration has established **tolerance of 15 p.p.m.** for Perthane on spinach, lettuce, and cherries. The Rohm & Haas insecticide, especially useful for **late season applications**, is among the least toxic to humans; tolerance is the highest established to date for any chlorinated insecticide. Depending on crop and pest, Perthane may be applied to within 5 or 7 days of harvest.

Soil Bank "Deposits": 10 Million Acres

By sign-up date of July 27, nearly 500,000 farmers had placed **10.7 million acres of cropland** under the Soil Bank's 1956 Acreage Reserve Program. Farmers involved can earn nearly \$225 million by compliance with program's requirements, aimed at **cutting current production** of corn, wheat, cotton, rice, peanuts, and tobacco.



- Proposed change of fertilizer guarantees to elemental basis for potassium and phosphorus goes much deeper than merely printing new labels for fertilizer containers (p. 663)
- Aside from USDA and California research, little work is being done by industry or state authorities to prepare for possible infestations of foreign insects in U. S. (p. 664)
- Demand for chemicals to control insects in southern forests is growing, but insect toll in lumber is also growing (p. 666)
- BHA takes lion's share of antioxidant market in food processing industry and BHT moves in on animal feed market (p. 667)



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Research Newsletter . . .

Aphid-Resistant Alfalfas

Parent strains of Lahontan alfalfa, developed originally for resistance to stem nematode and bacterial wilt, are being used to breed new **varieties resistant to the spotted alfalfa aphid**. According to USDA, tests show three of the five parent clones of Lahontan to possess near-immunity to the aphid—which cost alfalfa growers about \$5 million in 1954 and several times that in 1955. So far this year, damage in Oklahoma alone is over \$12 million; other southwestern states have been hard hit, and the pest has recently been discovered east of the Mississippi.

No Stilbestrol in Meat

Extensive tissue tests by the Food and Drug Administration confirm state experiment station findings that **no detectable amount of stilbestrol** is present in meat from steers fed the hormonelike chemical in fattening rations. Sensitivity of the tissue-assay method used by the FDA was better than **two parts per billion**, and test animals were fed stilbestrol at levels as high as six times greater than dosages recommended for daily rations.

Virus Carriers Detected

Herbaceous plants act as a **reservoir for the virus complex** known as Western X disease, University of California entomologist Dilworth D. Jensen told the Pacific branch of the Entomological Society of America at its recent meeting. All four strains of Western X can be transmitted to either herbaceous plants or stone fruit trees by the geminate leafhopper, Jensen found. Celery—and possibly other vegetables, flowers, and weeds—may thus be a **constant source of reinfection** if such plants grow near peach or cherry trees. At the same meeting, Norton S. Wilson of the USDA's Entomology Research Branch at Riverside reported that an **eriophyid mite** has been identified—after a 17-year search—as the **vector of peach mosaic virus**.

Contaminated Soil Research

University of Tennessee has received a \$10,000 grant from the AEC for research on **vegetation grown in soil contaminated by radioactive wastes**. UT scientists will cooperate with Oak Ridge National Laboratory personnel in comparing uncultivated vegetation grown in contaminated soil with similar wild plants found in a typical forest area. To be determined: whether radioactive products are concentrated in specific plants, plant parts, or litter left after plants die in autumn.



- Rapid method for determining total nitrogen and P_2O_5 in liquid ammonium phosphate can be used by operators of liquid fertilizer plants to control neutralization (p. 688)
- Dextrorotary forms of amino acid derivatives of 2,4-DP found to combine plant growth regulating activity with high selectivity (p. 690)
- No effect detectable on milk production, feed consumption, or health of cows fed alfalfa treated with hepatchlor or dieldrin, but considerable quantity of dieldrin was recovered from butter (p. 694)
- Preliminary investigations suggest that kinetic method of studying rumen function may provide qualitative information difficult to obtain otherwise (p. 701)