Business Newsletter . . .

More Phosphorus

Central Farmer's Fertilizer Co. is planning **a $5 million 35,000 KVA elemental** phosphorus furnace to be constructed near Montpelier, Idaho. If power contract goes through on schedule, construction could begin in 1956. Phosphorus will be converted to water-soluble calcium metaphosphate via the Seymour process. Phosphate will be sold to **Farmer's member coops in Midwest** for granulation and incorporation into complete fertilizers.

Fertilizer-Pesticide Mixtures

Fertilizer-pesticide mixtures are **now being sold in 36 states** according to a survey of control officials recently completed by R. C. Berry, Virginia State chemist. Officials in **New Jersey and Texas have taken firm stands** against mixtures; the New Jersey Experiment Station feels that mixtures are not a proper method for controlling pests.

Tonnage Down, Analysis Up

For the 15th consecutive year total consumption of fertilizer nutrients was up in 1953–54. Latest report from USDA says nutrient consumption was up about 4.4% over previous year; consumption by elements was: **nitrogen up 12.8%, potash up 3.9%,** and **phosphate down 1.26%.** Consumption was about 22.8 million tons or down 2.7% from 1953. For chemical nitrogen materials, greatest gains were made by **nitrogen solutions**—191,000 tons from about 73,000 in 1953.

Liquid Insecticides

More than **10 million gallons of liquid insecticides** were sold in the U. S. in 1954 according to the Chemical Specialties Manufacturers Association. Total volume of **sales was up 21% over 1953** with more than 81% in packages of 1 gallon or less. Chlordane has replaced DDT as the leader in packaged insecticides; chlordane residual type sprays accounted for 35% of the sales of all insecticides.

New Entries in Fertilizers

New operations announcements in fertilizers continue. Latest include Escambia Bay Chemical, **Santa Rosa County, Fla., with a 250-ton-a-day ammonia plant** announced under construction. Production will include 275-300 tons of ammonium nitrate. Flanders Mining Co. has a lease for **potash prospecting in Eddy County, Colo.**

- Transportation costs are decisive factors in ammonia marketing; as competition increases producers eye water transportation (**p. 461**)
- State highways are big potential market for herbicides; at least 16 states are field testing to find most effective chemicals and methods of application to control roadside weeds (**p. 462**)
- The proper role of the FDA with regard to the use of chemicals in foods seems to be the major issue at stake as various groups present their proposals on food additives legislation (**p. 466**)
- Drought in Southwest enters its 5th year, affecting greater area than during the dust bowl years of the 30's. USDA has ruled much of region a disaster area (**p. 469**)

Research Newsletter . . .

Pesticide Residues Low

Ten years of investigation by University of California researchers has not turned up a single instance of **possible harm from pesticide residues** on edible foods, when chemical was properly applied. R. L. Metcalf and E. G. Linsley of U.C. report more than 30,000 analyses of 20 commonly used insecticides, covering all conceivable conditions of use. Analytical techniques will detect equivalent of 1 pint of insecticide in 6,000 carloads of food. Food residues are usually **far below legal residue tolerances;** from $^1/_{10}$ to $^1/_{100}$ of legal limit is about average.

Biological Control

Two species of parasitic flies, imported from Trinidad, offer promise for control of **sugar-cane borers.** After two years of testing in Louisiana cane fields, USDA entomologists say the flies may aid in partial control of the most destructive sugar-cane insect. Flies lay eggs near entrances of holes made by borers in cane, maggots hatch from eggs, move into holes, and destroy the borers. Flies have achieved **up to 75% control of borers;** parasites might make it possible to eliminate one or two of the seasonal dustings ordinarily necessary for borer control.

Polymeric Fertilizer

Du Pont plans to swing into full scale production of **urea-formaldehyde fertilizer** at Belle, W. Va., by mid-summer (see p. 488). Material (38% N) offers prolonged release of available nitrogen; Uramite dissolves slowly over a period of months. Enough N for entire growing season can be provided with one application. Initial marketing will be aimed at **home gardeners and growers of turf** and ornamental plants.

Vitamin a Food or Drug?

A rose by any other name would smell as sweet, but is a vitamin a food or drug? This is currently being pondered by **a D. C. court.** Argument concerns definition of vitamins as foods or drugs; M.D.'s say they're drugs whether or not they are sold by prescription. Spokesman for National Research Council says vitamins are **foods even though they are used to treat or prevent disease.** Issue is being argued to decide if vitamin preparations should be subject to sales tax. If they're drugs they'll be exempted in D. C.

Spotlight

- Laboratory tests of surfactants are of little aid in predicting their value in fertilizer manufacture, surfactants have little effect on phosphate conversion (**p. 496**)
- DDT and DDE are absorbed by the cockroach when applied externally; the synergist piperonyl cyclonene inhibits the absorption of DDT (**p. 500**)
- Malathion can be applied to pasture for mosquito larvae control without danger of off-flavor or carryover into the milk of cows grazing on the pasture (**p. 508**)
- During ripening of corn, the starch content increases from 8 to 15% with an apparent increase in linear chain length, phytoglycogen increases from 7 to 30%; mechanism of ripening corn may be important to subsequent canning operations (**p. 521**)
- Quinoa and cañihua, are two plants which have been included in the diets of Andean Indians for centuries; the seeds from these plants have high nutritive values, equal or superior to those for dried whole milk (**p. 531**)