

# Feed Supplements Luring Chemical Industry to Farm Labs

Product development work on vitamin, antibiotic, amino acid feed supplements sparking chemical companies' interest in big experimental farms

**B**IG POTENTIAL MARKETS in supplements for animal feeds are leading the chemical industry down to the farm in a big way. With over 76 billion pounds of animal feed produced in 1952, the potentialities are easily seen.

Some observers predict that the market for antibiotics in animal feeds may soon exceed that in pharmaceutical outlets, for instance. Amino acids and vitamin B<sub>12</sub> are picking up speed, and there is renewed interest in vitamins A and E.

The four leading antibiotics now entering animal feeds are penicillin, bacitracin, aureomycin, and terramycin. Supplementing a ton of feed with four to five grams of procaine penicillin costs about 60 to 75 cents a ton; for 10 grams of bacitracin, the cost is about 75 cents; and the cost of 10 grams of either aureomycin or terramycin is about \$1.25.

Amino acid supplementation is another fertile field. Synthetic methionine seems to be closest to commercial-scale realization. A few companies are already manufacturing it for the poultry feed market. Some 9 million tons of chicken feed are produced annually. Supplementing that total with one half to a pound of methionine for each ton, at a cost of about \$1.50 to \$3.00, would bring a nice business to chemical producers and a tidy extra profit to poultry farmers.

In swine nutrition, synthetic sow's milk is opening another new field by reducing losses of suckling pigs and improving the growth rate during the early stages when the pig gains weight on less food.

In the past few months several large chemical companies have bought or leased farms for testing the potentialities of their amino acids, vitamins, antibiotics, animal protein. On these farms, chemists, nutritionists, and biologists are hard at work in laboratories, hen houses, pig pens, and pastures. They are looking for ways to increase growth rate, reduce mortality, prevent disease, increase pig litters, and improve feed efficiency in general.

There is still much product development work to be done in the whole field of animal nutrition and disease. For this reason, chemical companies getting interested in this market are moving into farm laboratories, doing the research necessary to back up their sales forces, and tending toward some more fundamental research.

In addition to the nutrition angle, some of the farm laboratories are conducting research on veterinary medicine and animal disease prevention and control.

With new growth factors, more knowledge about amino acids, and concentrated work on antibiotics, the chemical industry's interest in farm experimental work is bound to grow keener and pay off.



At Merck's farm, animal disease and nutritional studies are under way. Lab facilities ensure uniform mixing of a tiny amount of sulfaquinolone in feeds to prevent coccidiosis



Three-week-old pigs feed on dry artificial sow's milk on Pfizer's farm. Research indicates liquid feeding to be unnecessary at this stage, permitting use of cheaper proteins in solid feeds

Pont leases a commercial broiler plant at Lancaster, Pa., to study effects of methionine feed supplementation on chickens



CSC's poultry research at Terre Haute involves vitamin and antibiotic supplements in growth rate studies. Sale of poultry and hogs helps to cover cost of project



Two pigs on right who got the aureomycin in nutritional studies at Lederle's farm near Pearl River weigh almost as much as three on left without the antibiotic

