

Business Newsletter . . .

World-Wide Meat Increase

There is more meat on the world's tables now than at any previous time since World War II, according to UN's FAO; there is also more livestock on the range. In 23 countries, production total was up 16% over 1950. Consumption totals also were up and international trade, up strongly during the past two years, looks good for 1956-57. Consumption last year varied from 200 pounds a person in Oceania and leading meat areas of South America, to 4 to 11 pounds in some sections of the Far East. North America ate more than 150 pounds. **Russia's cattle population** was estimated 56.6 million—**much above 1941 but below 1951**; pigs and goats were at their highest. All had increased in Red China since 1949.

Cal Spray Plant in France

California Spray-Chemical has concluded negotiations with French authorities for approval of investments of \$1.5 million in a **captan plant in Southern France**. The plant will be on stream in fall of 1956 to supply needs of Europe as well as **markets in the Eastern hemisphere**. Markets in "soft currency" areas previously limited by dollar scarcity will now be eligible for development.

Soy Milk in Indonesia

A soybean milk plant is going up in Jogjakarta, Indonesia, and should be **in production by February**. The product, already tested with mothers and children, is expected to get enthusiastic response. Not only is it palatable, but it is **more easily assimilated by the underfed** than is cow's milk. It is also higher in protein. The UN Children's Fund has furnished \$350,000 worth of equipment for the 600 annual ton plant being built under direction of Harry Miller, FAO technician whose father, a medical missionary, developed the process.

Fertilizer-Pesticide Outlook

Business and Defense Services in a recent review says fertilizer shipments will pick up seasonally in the fall and early winter, but total activity in the second half will not equal that of the first. About 527,000 tons of anhydrous ammonia capacity will be added by the end of 1955 to bring **total rated capacity above 4 million tons**. Output and use of pesticides except for lead arsenate and benzene hexachloride will exceed by far the 1954 total. **Exports will probably top \$80 million**.

Trends and Movements

Monsanto-Lion merger has been approved by stockholders; becomes effective Sept. 30... Hiram Walker recently entered the USP riboflavin market with distribution through Desmo Chemical Corp., New York... Secretary Benson says farm real estate values are up 2%, debts are now 11% of income as compared to 19% in 1940... Carbide & Carbon's new unit for sorbic acid, mold preservative for food use, is now in action at Charleston, W. Va.; capacity exceeds a million pounds.



- Chemicalization of agriculture leads growers and processors of high quality food to realize their mutual interests (p. 815)
- Feeds, as well as fertilizers, expected to take output of urea plants, which are now producing 50% more than used (p. 816)
- Sales of chelates, now being modified to meet soil requirements, expected to reach a million pounds this year (p. 818)
- Stilbestrol in cattle feed gives definite advantages; other hormones being tested show similar promise (p. 819)



PROFIT STIMULANT FOR THE SOIL

Turning farm products into profits calls for more than modern farm machinery. Today's production booster that adds a bonus of better quality to almost any crop is anhydrous ammonia. It's the newest member of the Atlantic family of petrochemicals . . . that's why you see a miniature refinery superimposed on the field of growing corn.

This ammonia gas is injected into the soil where it provides low-cost nitrogen for plant growth.

Farmers well know that corn, like most crops, takes great quantities of nitrogen from the soil. Anhydrous ammonia acts as a fountain of youth. It gives the soil plenty of nitrogen for high crop yields at minimum cost per acre. In addition, anhydrous ammonia is used in the manufacture of many dry fertilizers.

Perhaps you're not a farmer. Practically all of us, however, benefit from anhydrous ammonia. It is used in widely different industrial products such as synthetic fibers, plastics and explosives.

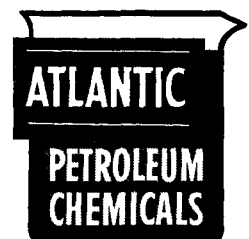
Industry of all kinds is constantly finding new and profitable uses for Atlantic petrochemicals. Atlantic engineers will gladly work with your technical staff to help reduce costs, improve quality, increase production or develop new and better products through the use of these chemicals. For information on this service, write to The Atlantic Refining Company, Dept. K-10, Chemical Products Sales, 260 South Broad Street, Philadelphia 1, Pa.

Philadelphia, Providence, Charlotte, Chicago

In the West: L. H. Butcher Co.

*In Canada: Naugatuck Chemicals Division of
Dominion Rubber Company, Ltd.*

*In Europe: Atlantic Chemicals S.A.B.,
Antwerp, Belgium*



Research Newsletter . . .

New Antifungal Agent

A new antibiotic compound, filipin, active against plant fungi, has been reported by a team of researchers working at University of Illinois and Upjohn Co. It shows promise **for use against fungi attacking seeds and the foliage** of plants. Actual tests with favorable results have been reported for treatment of tomato and pea seeds. Gray leaf spot, a semitropical blight of the tomato plant, was partially controlled with a spray of crude filipin. Among microorganisms inhibited by filipin are *Aspergillus niger*, *Fusarium oxysporum dianthi*, and *Sclerotinia sclerotiorum*.

Stilbestrol Gets Favorable Decision

Claims that stilbestrol is valuable for speeding beef gains (see page 819) have been **confirmed by USDA**. Preliminary results at Beltsville showed improved gains without adverse effects on carcass quality. Five animals averaging 900 pounds were given 10 milligrams per day per animal. They gained $\frac{1}{8}$ pound a day more than control animals. Main difference in carcass was that stilbestrol-fed animals had less fat. Their flesh was **at least as firm and high in solids content** as that of controls.

DDT Has Lasting Punch

DDT applied to soil **10 years ago is still killing wireworms**. USDA's Entomology Research Branch at Walla Walla, Wash., finds wireworms die when confined in cages with soil from fields where DDT at 20 pounds per acre was last applied in 1945. Some farmers reported **no wireworm reestablishment** up to seven years in fields that got a minimum of 10 pounds per acre.

Doubts on Taste Classification

Latest opinion offered on taste classification is not favorable. Edward Hoover, Wise Potato Chip Co., says the phenylthiocarbamide-sodium benzoate system is unreliable for taste classification of individuals. He told the recent ACS meeting at Minneapolis that his results suggest that most persons do not give reproducible taste reactions with at least one of the two compounds. Principal factor, according to Hoover, is **inability of individuals** correctly to define standard tests.

Rust Battle Grows

Increasing effort and some progress is showing in the battle against wheat rust. Canadian government is planning a new \$650,000 laboratory at the University of Manitoba. At the recent American Society of Agronomy meeting, several reports were made on research progress. Groups from University of Minnesota, Washington State College, and Brookhaven Laboratories described progress in induction of **rust resistance by means of ionizing radiations**.

Spotlight

- Radioisotopes provide agricultural research with a useful tool that adds a new dimension to knowledge of photosynthesis, mechanism of pesticide action, and plant nutrition (p. 826)
- Mammalian toxicity studies with Sulphenone indicate a wide margin of safety for residues of the pesticide on crops (p. 836)
- Radioisotopes used in studying Herbisan (or Sulfasan) reveal that its herbicidal action is of the contact type (p. 849)
- Amount of soil organic matter can be determined quickly with new color test adaptable to field use (p. 852)
- Cost and performance evaluation of fungal amylase for grain alcohol fermentation shows it is both practical and economical (p. 866)