AGRICULTURE

World's Food Must Triple

➤ BY THE YEAR 2000 the world's food supplies must be tripled if the population is to have enough of the proper food to eat.

Only a few areas in the world have a reasonably adequate food supply. Counted among these areas are North America, Northwestern Europe, Australia, New Zealand and parts of Eastern Europe.

In the United States alone, the productivity per farmer has tripled since 1940. This enabled the United States to donate 1.45 million tons of food to 112 overseas countries last year.

The United States currently has a surplus of about 27 million tons of wheat that has built up through past years. This figure represents enough wheat to feed the whole world at a survival level for about two weeks.

Many countries are hampered in building food stocks because of poor agricultural methods used. In most low-income countries, 60% to 80% of the people are farmers, but still the productivity is not great enough to feed the people.

Other nations have difficulty in producing adequate food supplies because of poor weather conditions and insect problems. Last May, Hungary suffered cereal crop losses of 40% to 80% in various sections of the country because of severe storms. In the same month, Bulgaria lost 55,000 acres of wheat to insects.

Dr. Kenneth L. Turk, director of International Agricultural Development, Cornell University, suggests in a U. S. Department of Agriculture report that one answer to the world's food problem is in teaching farmers of underdeveloped countries better agricultural methods.

Adequate research programs in each of the different countries must be undertaken, in his opinion, and effective procedures for making new information available to those on farms and in related businesses must be developed.

• Science News Letter, 86:79 August 1, 1964

AGRONOMY

Chemical's Effect on Quackgrass Explained

➤ STUDIES at the University of Wisconsin have shown why Atrazine has become the most popular killer of the persistent quackgrass that plagues so many gardens and fields.

Agronomists R. D. Schirman and K. P. Buchholtz of the University's staff said that ordinary weed killers stop all processes in the quackgrass plant, but its root reserves remain to support regrowth and it keeps coming back.

Atrazine, chemically known as 2-chloro-4-ethylamino-6-isopropylamino-s-triazine, works differently. This chemical, made by the Geigy Chemical Co., New York, blocks the process by which green plants build carbohydrates with energy from the sun, but it does not affect the processes by which the plant uses up its food reserves. The result is that the large amounts of carbohydrates in the quackgrass roots are used up rather quickly.

The top of the plant dies of poor nutrition, and there is not enough carbohydrate left in the root system to support much regrowth. If some regrowth occurs, a vigorous corn crop, for example, usually competes effectively, and the weakened quackgrass plants die. Corn is also a crop that tolerates Atrazine, and can be grown on land treated with the chemical.

The scientists found that low application rates of one pound of Atrazine per acre applied two or three times during the growing season were more effective than a single application of four pounds per acre. They said that applying the first treatment in the fall or early in the spring a month or more before corn planting time gave best results.

In the studies, very heavy growths or heavily infested areas of quackgrass were cleaned out by applying two pounds per acre of Atrazine at intervals of a month or more.

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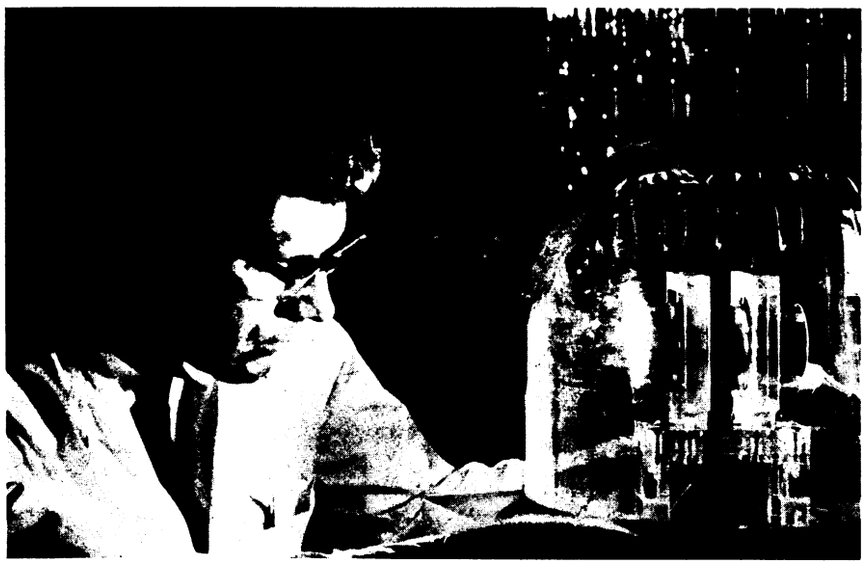

Continental Can Co.

CAN COATING—A research scientist watches an experimental glow discharge coating form on the inside of a can body in Continental Can Company's research center in Chicago. This new method would eliminate the present process of coating cans mechanically in which single sheets are fed through a lacquer coating machine and then baked.

NUTRITION

Turnip Green Juice Preserves Meat Flavors

➤ THE JUICE from turnip greens, a dish prized on Southern dinner tables, has been found to show much promise as a preserver of meat flavors.

Mrs. Agnes Cofer, a doctoral candidate at Florida State University's Home Economics Laboratories, Tallahassee, reported that turnip green extract or "pot liquor" slows normal breakdown of fats in meats, when they are soaked in the turnip green juice.

The juices from green onion tops, green peppers, potato peelings and celery leaves also show this property with meats.

Taste tests have shown that turnip green "soakings" do not affect the fresh taste of precooked meats or frozen vegetables. Your TV dinners also may someday taste fresher with the use of turnip green juices as "flavor savers."

Mrs. Cofer has also experimented with gravy mixes using the turnip green extract. A gravy prepared from cornstarch and the turnip green extract has been used to preserve the flavor of beef slices under refrigeration.

The flavor, she reported, improved with age. Fatty breakdown of the meat also appeared to be slowed.

Mrs. Cofer is on leave from Louisiana Polytechnic Institute, Ruston, where she teaches home economics.

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VETERINARY MEDICINE

Family Problems May Cause Illness in Pets

➤ A DOG OR CAT can become ill or die because of family problems.

A family pet may be able to "tell" a doctor much about emotional or mental problems in the house, as it reflects the behavior of the family unit in its own behavior, Dr. Ross V. Speck, therapist at Philadelphia Psychiatric Center and assistant professor at Hahnemann College and Hospital, Philadelphia, reported in the Journal of the American Veterinary Medical Association, July 15, 1964.

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