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A BILLION PEOPLE AND THE RICE BOWL

Every day more than one-third of the world's people awaken to face a future that is dominated by a single commodity, rice. Moreover, by the end of the 20th century, the number of people dependent upon rice for their staple food will be greater than the present world population, points out the Foreign Agricultural Service.

Will there be enough rice for them to eat? This is the question that prompted the Food and Agriculture Organization of the United Nations to designate 1966 as International Rice Year. This promotional program has marshaled nearly every rice-growing country of the world into an all-out effort to produce more rice.

The FAS says that the objective of the program is not so much to increase the world's rice acreage as it is to obtain a larger quantity of grain from the present acreage. The old methods of growing rice can no longer be used; modern technology must be fully committed to the task of boosting yields—through greater use of fertilizer, better seed strains, improved water management, and disease and pest control.

The potential of the world's rice production is enormous; however, a huge gap exists between the countries of Asia and Africa, where rice yields amount to about 1,500 pounds per acre, and the countries of Europe and North America, where yields range from 4,000 to 4,500 pounds per acre. Since the largest part of the world's rice acreage is located in the under-

developed countries where yields are lowest, even a slight increase in output per acre could mean the difference between hunger and plenty.

Statistics reveal this situation very clearly. Asia, with 200.8 million acres in rice in the 1966 crop year, had a yield of only 1,406 pounds per acre. South American acreage totaled 12 million acres, and the yield was 1,489 pounds per acre. In the United States the yield was 4,291 pounds per acre on approximately 1.8 million acres; and in Europe it was 3,989 pounds on 813,000 acres. Australia, with only 65,000 acres in rice, reached a peak yield of 5,766 pounds an acre.

Yields are increasing in practically all of the world's rice-growing countries, but in many of them the rate of gain is very small. This is particularly true of the underdeveloped countries of Asia, Africa, and Latin America. Only in Japan, the United States, Australia, the Soviet Union, and several European countries are rice yields mounting significantly.

The great variance in yields is the factor which has created the problem in the world rice situation, namely, the need to keep production rising with the rate of population growth and consumption. At an average rate of 2.5 percent annually, the increase in world rice output just barely meets the requirements of a growing population. When world rice production experiences a sharp reversal (as it did during the past year because of adverse growing conditions in many of the major producing countries), the margin between enough

and not enough rice is too narrow, according to the FAS.

Improved rice yields can be achieved in many ways. In the Philippines, for example, even a minimum fertilizer application usually results in a 20-percent gain in output, yet only 1 out of every 10 rice paddies is fertilized.

The use of better seed is another method for improving rice yields. The huge, complicated task of bringing better seed into wider use is the major goal of the International Rice Research Institute, an \$8-million research complex which is located in the Philippines near Manila. Over the years, the Institute has developed greatly improved rice varieties, tailoring them carefully to the substantially different local conditions.

During the past summer, for example, the Institute announced that a new and extremely promising rice variety would be given its first test under actual farm conditions in the Philippines. Yields are reported to amount to between 5,260 and 5,880 pounds per acre, in sharp contrast to the Philippines' average of 1,070 to 1,150 pounds per acre. About 45 tons of the new rice have been donated to the country's Rice and Corn Administration for distribution to farmers, and a much larger quantity of seed is expected to be available next year, says the FAS.

Total U.S. production of rice in 1966 is placed at 84.9 million bags. Output in Louisiana and Texas — the major rice-producing states of the Eleventh Federal Reserve District — is estimated at 42.7 million bags, or one-half of the national output. The per acre yield in the District is placed at 4,010 pounds.

Nonfood items account for almost 25 cents of every dollar spent in food stores today, according to Texas A&M University. During the past 10 years, supermarket food sales have risen 51 percent, while nonfood sales have increased 140 percent. Texas A&M University specialists say that the trend seems to be for the convenience of one-stop shopping instead of many stops at the drugstore, dimestore, and hardware store.

Weather Damage to Trees Is Tax Deductible

The value of an ornamental or shade tree that is damaged by high winds, tornadoes, or other acts of nature is deductible from income taxes, points out Bill Smith, Texas A&M University Extension Forester. The value of the tree can be determined by the decrease in the assessed value of the real estate or by a formula based on tree size. The formula applies to many trees grown in Texas, including redbud, black walnut, American and Chinese elms, cottonwood, red and white oaks, and maples.



Mr. Smith says that \$5 per square inch of trunk at breast height is the value determined by the National Shade Tree Conference Committee on shade tree evaluation. Based on

the diameter of the trunk at breast height, or measurement at 4½ feet from the ground, the basic value of a 4-inch diameter tree would be about \$62. A 20-inch diameter tree at breast height is valued at more than \$1,500. Small trees (under 4 inches in diameter) are valued at replacement cost, plus the expense of planting with the same size trees. Property owners should measure the trunks of damaged trees before removal and keep the measurements for tax records, according to the Texas A&M University specialist.

Protecting Our Food

The 1966 Yearbook of Agriculture, *Protecting Our Food*, describes the enormous job of guarding our food against pests, disease, and damage. The Yearbook authors say that the people in this country have to fight 10,000 kinds of insects for our food. We have to combat 1,500 plant diseases and 250 animal diseases, as well as fight spoilage and decay.

The 1966 Yearbook of Agriculture, recently released by the U.S. Department of Agriculture, contains 416 pages and 105 photographs. The publication follows the progress of our food supply from the farmer's field to the

saucepan on the stove. The Yearbook describes every stage of safeguarding food from insects, rodents, bacterial contamination, and loss of body-building values.

Copies of *Protecting Our Food* may be obtained for \$2.50 each from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402. The U.S. Department of Agriculture has no copies of the Yearbook for public distribution or sale.

Food Imports

Slightly over 11 percent of the food consumed by American civilians in 1965 was either imported from foreign countries or shipped in from U.S. territories. The U.S. Department of Agriculture says that the figure is below the average for the past decade, during which imports have comprised 12.5 percent of the total U.S. food supply. Coffee, tea, and cocoa account for over one-half of the crop products imported. These commodities, together with other products that do not compete with U.S. farm production, make up 45 percent of the total import value; competitive goods comprise the remaining 55 percent.

Special Tax Benefits for Senior Citizens

A guide that outlines special tax benefits for people who are 65 years of age or over is available from Internal Revenue Service offices, reports Texas A&M University. The 18-page booklet, entitled *Tax Benefits for Older Americans*, was prepared by the IRS in cooperation with the President's Council on Aging. The publication is especially important to retired persons who are living on fixed incomes, says Miss Leota C. Lane, Extension Family Life Education Specialist at Texas A&M University.

Included in the guide is a simplified explanation of how the provisions of the Federal income tax laws apply to older Americans. Tax-saving information discussed in the booklet includes an explanation of benefits for a surviving spouse or head of a household, added exemptions for age and blindness, and the amount of tax credit which is allowable for retirement income.

Explained in the booklet are three tax bill changes which apply to senior citizens and became effective in 1964. These changes involve (1) the minimum standard deduction and how it may reduce tax liability, (2) all allowable medical expenses as fully deductible for taxpayers who are 65 years of age or older, and (3) a revision of the income tax requirement on the sale of a personal residence.

Following the procedures outlined in the booklet may result in substantial savings for some people on 1966 income taxes, states Miss Lane. Single copies of *Tax Benefits for Older Americans* may be obtained, without charge, from the nearest Internal Revenue Service office.

Record Breadgrain Output

World production of breadgrains in 1966 is expected to reach an all-time high of 289 million metric tons, reports the Foreign Agricultural Service. The figure is up 4 percent from the 1965 total and is 1 percent above the previous peak of 287 million tons in 1964.

The 1966 world wheat crop is forecast at 259 million tons, compared with 245 million tons in 1965 and the previous record of 255 million tons in 1964. Rye output, however, at an estimated 30.2 million tons, is down 10 percent from the 1965 outturn.

Narrow-Row Cotton Shows Promise

Yields of cotton have been increased and production costs have been lowered by planting cottonseed in narrow, 7-inch rows. The narrow-row experiments are being conducted at Texas A&M University's South Plains Research and Extension Center near Lubbock.

Cotton production in narrow, 7-inch rows has been investigated for several years on the Southern High Plains of Texas. Compared with output from standard 40-inch rows, cotton yields have been slightly higher in narrow rows and production costs have been reduced as much as 27 percent.

With high populations of 200,000 plants or more per acre, leaf area increases rapidly and the rate of fruit set is very high, according to

Dr. L. L. Ray, Texas A&M University Agronomist at the Lubbock Center. The seasonal requirement for crop production has been reduced by about 30 days, and the exposure of open bolls to weather has been lowered as much as 50 days.

Dr. Ray noted a significant relationship between the variety of cotton used and row spacing. Early varieties with small leaves growing more upright appear to be best adapted to narrow rows. New cotton strains developed for narrow-row production are currently being tested, and an efficient finger-type stripper harvester has been designed for harvesting cotton grown in narrow rows.

How Much Do Families Spend for Food?



An Agricultural Research Service survey of household food consumption reveals that the average American family of 3.3 persons used \$35 worth of food per week during the spring of 1965. The figure represents a 17-percent increase over 1955, when the last national food survey was made. The increase in the family food bill amounted to \$5 per week. Included in the increase is a 13-percent rise in food prices since 1955. It also includes an increase in food purchases by farm families, together with a decrease in the amount of their home-produced food. In 1955, farm families produced 41 percent of their food at home; in 1965, however, they produced only 31 percent.

Of the \$35 worth of food consumed, \$29 was for food used at home, including \$2 for the market value of home-produced food, Federally-donated food, and food received as gifts or for pay. Meals and snacks away from home averaged \$6 per family per week.

The survey was conducted by Faith Clark, Director of ARS Consumer and Food Economics Research; S. F. Adelson, Food Economist; and Evelyn Grossman, Statistician.

Results of the survey will (1) help guide farm and food policies, (2) serve as a basis for nutrition education programs, and (3) benefit economic and marketing research on the demand for agricultural products.

Approximately 7,500 families of all sizes in cities, rural nonfarm areas, and farm sections in the Northeastern, Northwestern, Southern, and Western regions of the United States were surveyed, thus providing a nationwide picture. Comparisons between groups surveyed show that in 1965 urban and farm households consumed food worth \$36 per week, while rural nonfarm households used \$33 worth. Regional variations ranged from \$39 per week in the Northeast to \$31 in the South.

Average-size families with incomes near the top of the ladder had food bills which were more than twice as high as those at the bottom. Families with annual incomes above \$10,000 consumed food that was worth \$54 per week; those earning less than \$3,000 a year used \$20 worth of food per week.

Soil Micronutrient Tests

Texas A&M University's soil testing service for farmers, gardeners, and homeowners is being expanded to include micronutrient tests, according to John E. Hutchison, Director of the Agricultural Extension Service. The announcement of the expanded service followed the installation of an atomic absorption spectrophotometer which was provided through a grant from the Texas Plant Food Educational Society.

The new instrument can measure the amounts of magnesium, zinc, iron, manganese, and copper in plant and soil extracts and thereby provide a scientific basis for the use of these elements. Previously, Texas A&M University soil tests measured only the amounts of phosphorous, potassium, organic matter, and soil acidity and detected salinity hazards. Procedures for utilizing the capabilities of the new equipment are being developed, and instructions for collecting soil samples for the micronutrient tests will be available soon from county Extension offices.