

## Kenaf, Potential Jute Substitute May Be Agriculture's Cinderella Crop

A towering plant with a Persian name and the look of a lily-of-the-valley has been the Western Hemisphere's dependence on Asia for vital fiber supplies.

The plant is kenaf, whose physical properties fit it for nearly all of jute's uses and allow it to be spun or woven on jute machinery. Experiments in Cuba indicate that the biggest obstacles to kenaf's

development as a major commercial crop and jute substitute have been overcome. Machines now offer cheap, profitable harvesting in place of expensive manual methods. Scientific agriculture has produced disease-resistant varieties of the plant, capable of high yields and adaptable to several growing seasons.

## Runoff, Rainfall Deficient For March, TVA Tells

Both rainfall and runoff were deficient in March in the Tennessee Valley, TVA reported recently.

Runoff—the amount of water that reaches the streams and reservoirs—has been unusually low for the first three months of the year.

Rainfall over the Valley averaged 6.49 inches, compared with a 65-year average for March of 5.97 inches.

Runoff measured 2.27 inches at Chattanooga, compared with a March average of 3.76 inches. For the first three months of the year it measured 6.49 inches at Chattanooga, 3.63 inches below the long range average of 10.12 inches.

At Kentucky Dam runoff measured 2.21 inches, considerably under the month's average of 3.31 inches. For the period January-March runoff there was 6.65 inches, compared with the long range average of 10.27 inches.

TVA will hold another of its pilot-plant demonstrations this year to acquaint the fertilizer industry with its recent developments in fertilizer production technology. The demonstration will be held June 9-11 at the Muscle Shoals laboratories near Sheffield, Ala.

As in the demonstration of two years ago, which was attended by about 400 representatives of the fertilizer industry from 34 states, Hawaii (then a territory), Puerto Rico, and 4 foreign countries, the program will consist of a series of pilot-plant runs preceded by short discussion periods. Subjects to be discussed and illustrated include the production of liquid fertilizers, the granulation of high-nitrogen and low-nitrogen grades, and some factors affecting loss of nitrogen during granulation. A general resume of TVA's fertilizer research and development program also will be presented. Tours of the laboratories and manufacturing facilities will be arranged.

## SCHOOL AND YOUR CHILD

By JOHN COREY

### Appalachian State Teachers College

Most parents teach their children: Love and respect thy God. Love and respect thy father and mother. Many add:

Love and respect thy teacher.

Youngsters possessing this attitude toward teachers usually learn more, states John T. Howell, principal of the Appalachian State Teachers' College demonstration elementary school at Boone, N. C.

Further, the teacher does a better job of instruction, the principal contends. When there are no barriers, transmission of knowledge flows smoothly and freely.

The parents really wanting to help Junior can't do better by the youth than cultivating within him a high regard and respect for the teaching profession, advises Howell, who's been a principal for twenty-one years.

Students harboring feelings of disrespect for school superiors are handicapped in the learning process as one verging on blindness. Teachers try hard to reach these pupils but too often the youngsters' shields of antagonism prevent their seeing those trying to help them.

Principal Howell contends that fathers and mothers best instill proper attitudes within offspring by setting example themselves. Parents should hold the teaching profession high in esteem and show it.

And on occasion should a parent think a teacher has erred, the matter should be discussed directly with him, not the child. In fact, the child should never know the teacher's action was even questioned.

Good teachers, like everyone else, need praise and recognition, Howell believes. The majority are underpaid and too often their contacts with parents are limited to those complaining about Junior's low grades or poor conduct.

The father or mother who drops by the class to render an unexpected "pat-on-the-back" for the teacher's fine job of penetrating algebra through Johnny's skull does nearly as much for the educator as a pay raise.

Underneath the teacher's thick crust of academic skin are feelings as tender as the incoming first-grader's. Respect and consideration for them are required for him to do his best job.

Although many schools have rules prohibiting pupils' giving presents to teachers, Principal Howell sees little harm in parents encouraging youngsters to show their gratitude by bringing teacher an apple or bouquet of flowers if it's done out of love and not for favor.

But the finest present that can be given the classroom educator, says Howell, is a kind word here and there.

(Editor's note: Readers having questions concerning education are invited to write "SCHOOL AND YOUR CHILD," Appalachian State Teachers College, Boone, N. C.)

## Laughing Gas, Moth Balls Among Many Coal Product

The prosaic lump of coal is a veritable treasure chest yielding a seemingly endless variety of products.

The Germans even made ersatz butter from coal during World War II, and a scientist predicted recently that synthetic food will become a major by-product of coal.

Other products derived in whole or part from coal include aspirin, phonograph records, laughing gas, the flavoring in most vanilla ice cream, perfume, embalming fluid, laxatives, synthetic vitamins, dyes, TNT, moth balls, indelible pencils, clay pigeons, paint, synthetic rubber, saccharin, and fingernail polish.

This is just a sampling. There are believed to be more than 200,000 chemical by-products of bituminous coal, the National Geographic Society says.

Relatively few, however, are marketed commercially.

The multitude of substances are part of the rich yield from coking ovens, which release the "buried sunshine" in coal. When coal is heated to high temperatures in the absence of air, the solid residue is carbon-rich coke, essential in producing steel.

The gases produced in the coking process are equally important. In recent years special plants have been built to distill and process chemicals from the gases. Coke is simply the by-product.

One of the most versatile of the some 350 compounds derived from the coking process is coal tar. A young English chemist, W. H. Perkin, made a synthetic mauve dye from coal tar in 1856, giving England its "mauve decade" and opening the way for a vast synthetic chemical industry.

Coal tar, a sticky, foul-smelling substance, can be treated to produce many products, including the delicate perfume scents of new-mown hay and orange blossoms. Almost 25 tons of violets once were required to make a single ounce of natural oil—a process now duplicated easily in the laboratory.

Coal tar also is used to make DDT, sulfa drugs, photographic developers, weed killers, refrigerants, road paving, detergents, carbon electrodes, and antiseptics.

Other gases drawn off and treated after coking produce an array of substances, including plastics like nylon and the flexible resin polyethylene. When drained of much of their chemical wealth, the gases can be burned as fuel.

Although chemicals are important, coal is mainly used for fuel in the United States. Slightly more than half of all electric power in the United States is generated from that source. The steel industry is the next largest consumer.



PART OF HOMES FOR REFUGEES 400 Square Miles Turned Into Rice Farms

## U. S. Aid Working To Resettle Red Refugees

U. S. dollars and technical know-how are turning a former wasteland into a prosperous agricultural community for hundreds of thousands of refugees from Communist-held North Viet Nam.

The resettlement project is taking place in the delta country of South Viet Nam known as Caision. Here, in two sections totaling about 400 square miles, more than 460,000 settlers are hard at work expanding the area's two principal businesses—fishing and rice farming.

What's so remarkable about the program to government officials is that just three years ago this now-

rich land was as poor as the masses of refugees driven from their homes by the Reds.

Unoccupied since its owners fled the Japanese in World War II, the land was overgrown with tall, wild grass which many people believed would prove impossible to clear away. The area's canals had become clogged with sediment and debris.

As part of its world-wide program to aid underdeveloped countries, Uncle Sam's International Cooperation Administration rushed machines and technicians to Caision.

Ninety tractors worked as long as 16 hours a day uprooting the tough

grassy blanket to make the land suitable for rice farming. Workers, including the refugees, started clearing the canals and constructing houses along their banks.

Now the once-desolate area is dotted with homes and stores. Schools and medical dispensaries also have been erected. And the fishing and rice farming enterprises have proved so successful that Caision's residents are starting to supply these products for export.

Funds for the project have come out of the 97 million dollars which Uncle Sam provided from 1954-56 for Viet Nam redevelopment.

## 15 Organizations Get Licenses During March

During the month of March licenses were granted by the State Board of Public Welfare to 15 organizations to conduct fund-raising campaigns through public solicitations for the support of their programs, it was announced by Dr. Ellen Winston, Commissioner.

Licenses were granted to twelve organizations which have held licenses for previous solicitation periods. These organizations are: Alumni Association, School of Social Work, University of North Carolina; American War Mothers, North Carolina State Chapter; Chowan College; Duke University; Florence Crittenton Home; Grace Hartley Memorial Hospital; Huckleberry Mountain Workshop-Camp; National Multiple Sclerosis Society; North Carolina Child Evangelism Fellowship; Second Sight—Guide Dog Foundation for the Blind; Wake Forest College; and Young Men's Christian Association of the Carolinas; Interstate Association.

Children's Village, Muscular Dystrophy Association of the Carolinas, and Shaw University are three organizations which were licensed for the first time to solicit in North Carolina.

The amount which the fifteen organizations will seek from the public in North Carolina during the year will be approximately \$16,332,431.

## New Operating Technique Promised Aid For Persons Suffering Blatter Trouble

A new surgical technique to create an artificial urinary bladder within the body has been reported by the Veterans Administration.

Devised by Dr. Charles L. Reynolds of the Dallas, Tex., VA hospital the operation uses a segment of small intestine as a bladder for patients with cancer or other disease necessitating bladder removal.

This new bladder made of small intestine, conveys urine to the outside through the normal channel in the normal manner, with full control of urination.

The procedure has been performed by Dr. Reynolds twice.

The first patient, a 38-year-old veteran, volunteered for the operation at the Dallas VA Hospital 18 months ago, after suffering more than 10 years with a bladder disease by a pre-cancerous lesion.

The surgery was successful and the man's postoperative condition has been good, Dr. Reynolds said.

The second operation, also at the Dallas VA hospital, was performed on a veteran last December. Dr. Reynolds said all indications are that it also will prove successful, although not enough time has elapsed to permit a definite conclusion.

The new technique involves removing the bladder completely. Then a segment of the small in-

testine, about 8 to 10 inches long, is cut out and left loosely attached to blood supply within the body. The bowel is rejoined.

Then the segment is swung down in the abdomen and attached to the urethra at about a mid-way point in an approximate T-shape and one end of the segment is closed. The ureters, or tubes from the kidney, are then attached to the segment. The open end of the segment is attached to the skin to drain outside the body. This is the first stage of the operation.

About five to six weeks later, the open end of the segment is tied off and the artificial bladder is then enclosed in the body.

## FARM QUESTIONS

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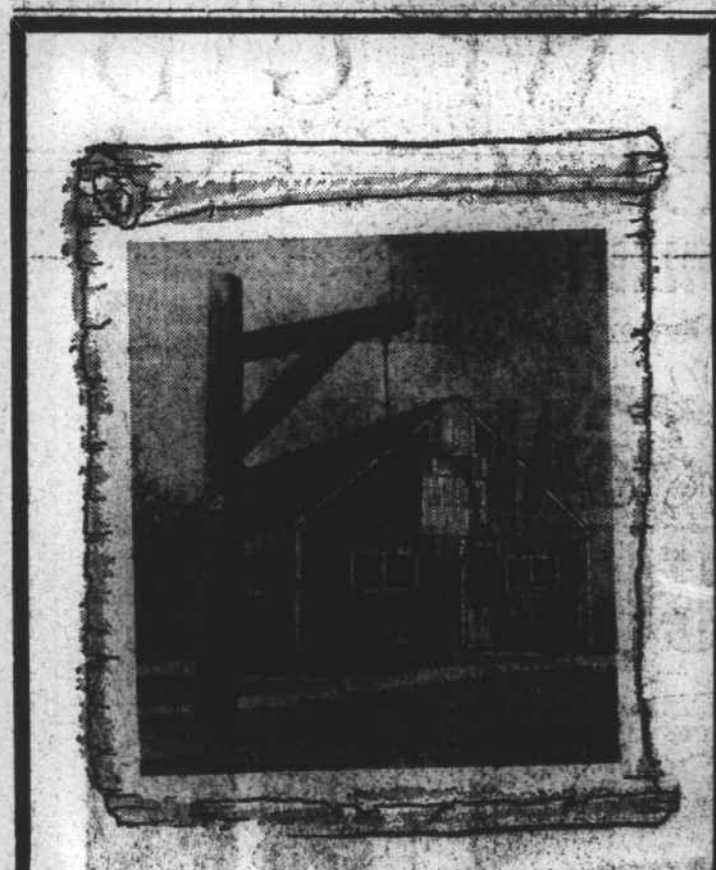
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