

SUGAR CANE HOLDS PLASTIC MATERIAL

Cornstalks, Straw Yield Compounds

Ames, Ia. (UP)—In bagasse, or sugar cane after the juice has been removed, federal scientists believe they have found a low cost plastic compound which may replace synthetic kinds now on the market.

Dr. S. I. Aronovsky, acting chief of the United States by-products laboratory here, estimated that bagasse can be processed for this purpose at "less than half the cost of the cheapest synthetic compound on the market."

In experiments the cost ranged from about 2 to 4.5 cents per pound, depending on the process used.

It is adaptable, Aronovsky said, to buttons, ash trays, fountain pens and even larger items.

Cost Has Been Handicap
In the past, the comparatively high cost of common molding powders such as cellulose acetate, phenol-formaldehyde and urea-formaldehyde, have handicapped to some extent the production of larger articles from such compounds.

"It seems unlikely that the price of these raw materials can be reduced substantially," Aronovsky said.

"But with a low cost molding compound, including just a small amount of low cost chemicals, the plastics industry could enter broader fields such as the manufacture of furniture, building material and parts of automobiles."

"Where certain qualities of the costlier phenol-formaldehyde resins are not required, the cheaper product could be substituted."

Cornstalks Also Used
Already laboratory research is under way to convert cornstalks and straw into plastic compounds under the same formula. Like bagasse, they both contain cellulose and lignin, both essential ingredients. Plastics already have been produced from corn cobs by Iowa State college chemists.

Three methods have been utilized in producing plastic compounds at the by-products laboratory. Each involves hydrolysis or breaking down of the bagasse, filtering, grinding, drying, mixing with plasticizing agents and molding at high temperatures in a hydraulic press.

The cheapest method involves hydrolysis with a weak solution of sulphuric acid. The second requires hydrolysis in the presence of aniline, and the third, hydrolysis with sodium hydroxide. In each process, the addition of furfural is one step.

T. R. McElhiney, on Iowa State college graduate in chemical engineering is in charge of the experiments.

WOMAN CHAMPION OF HIKING CLUB

Cleveland Group Holds 40 Mile Jaunt

Cleveland, O. (UP)—Blistered but beaming, members of the Cleveland Hiking Club, who take to the fields each Sunday regardless of scorching sun, blinding blizzard or scorching downpour, have completed their annual 40-mile hike.

Through gorges, over fences, across streams, the walkers traveled in the biggest hike of the season.

"I don't see how anybody gets any fun out of riding in an automobile," said Mary Kolar, champion hiker, who has been with the group for 11 of its 20 years of existence. "The only way I like to travel is on foot or by horseback!"

Miss Kolar has covered 6,421 miles since she joined the club—approximately the mileage of a round trip to Europe.

Members of the club are housewives, college students, young couples and business men.

Walk in Moonlight
In the summer, the club adds moonlight walks to its schedule, with the following result:

Since its organization, the club has been responsible for the introduction and ultimate marriage of about 20 couples.

In the weeks just previous to the great 40-mile hike, members temper themselves with increasingly distant jaunts.

Each week the group is led by a different "pathfinder"—an experienced hiker who breaks the trail through the brush and mud.

The club, which has 118 active members, has just built a log cabin in near-by Medina county.

Surrounded by nine acres of rough, wooded area, the camp guarantees the club's nature lovers against the advance of civilization.

Some Keep Notes
Many of the club members take notebooks along on the hikes to preserve their woodland impressions. Others carry cameras to record permanently encounters with rabbits, possums or interesting birds.

Most of the members carry chocolate bars and mints for extra energy.

Morning hikes are paced at six miles an hour, but the afternoon jaunts generally are more leisurely.

"We have two kinds of hikes," Miss Kolar said. "One is the great circle hike, which is completed entirely on foot. The other is the 'cross-country.' In this we are taken to some point by automobile, to return on foot."

Charles Schott, who admits to being "a little over 70," is the oldest hiker in the group. He has 3,498 miles of tramping behind him and turns out only for the more brisk, endurance hikes.

"I leave the easy one for the beginners," he said.

SHOCK TREATMENT CURES
Chonberra, Australia (UP)—The federal director of mental hygiene has announced that 46 per cent of the patients in government mental homes who have been treated with the new insulin-cardiac shock treatment have recovered full mental health.

Farm House of Tomorrow Different



A far cry from the verandas and sagging "back stoops" of old-fashioned farmhouses is the charming but functional terrace of the modern farm house. Notice the tile floor and the huge stone fireplace.

By Marian Young
(NEA Service Staff Correspondent)

New York—Tomorrow's children will go back to the old homestead not only to see the folks and get a whiff of fresh air, but to sit and admire again the houses in which they were born—houses of charm and beauty as well as comfort. Because, inside and out, the farm houses of tomorrow will be smart and ultra-utilitarian from every point of view.

One of them—called the electrified farm—is on exhibit at the New York world's fair. And it's enough to make anyone who remembers how the family wash was done in a tub that rested upon the backs of two kitchen chairs, what a long time it took to make butter in a barrel churn or how hard it was to read by the lamp on the kitchen table, lose all sentiment for the old ways and wish that he'd been born tomorrow instead of yesterday.

In general, the architectural design of the buildings on the electrified farm were determined by the many farm materials which were donated for the exhibit. Also by the use of the most economical roof (single slope with slight pitch), and by the placement of the windows where they were most needed—the south side in the case of the greenhouse, brooder, poultry house, milk parlor, dairy and house proper.

All of the living rooms of the house face south, overlooking the gardens and fruit trees. (Remember how the gardens always were at the back of the house which had no windows, while the front, with windows, faced on the road?)

The dead-end kitchen is designed not as a thoroughfare, but as a place where the farmer's wife may cook without interruption and where the rest of the family won't be running in and out, muddy boots and all, and tracking up the clean floor. Plenty of natural light by day and plenty of artificial light by night falls on all of the working surfaces.

Adjoining the kitchen is a mechanical laundry which provides expansion space for the kitchen during

the canning season and for extra hands to eat during harvesting. One entire side of this laundry is a sliding partition which disappears into a recess and joins the laundry to the large back porch. A mother with small children would appreciate this feature. It enables her to keep an eye on the little darlings and at the same time finish the laundry. The porch has a tile floor and an open fireplace—nice for outdoor eating.

The living room with huge windows and a six feet wide hearth in front of the fireplace, a reading corner, air-conditioning and concealed lighting, a built-in sofa with radio and concealed cabinet space is functional but at the same time as beautiful as any urban living room.

An office and wash room, separated from the rest of the house by an open passageway (glassed in during the winter), may be used also as an extra bedroom. The same wash room is easily accessible from the wide back porch which adjoins the laundry.

Radio Voice Works on Recalcitrant Mule

Trinity National Forest, Cal. (UP)—Radio, in one case at least, has solved one of the obstacles bequeathed to man by nature—the problem of how to make an obstinate mule move.

When one of the pack mules here, ascending a steep mountain trail, refused to go any further, it was remembered that the mule's custodian, a fire forest guard, had a few persuasive words that were always effective with the mule. He was immediately called on one of the forest's lightweight radio sets and the situation explained.

At once the receiver of the radio set was placed to the mule's ear, his master began the endearing words, a look of surprise came over the mule's face, and without further ado it began to climb the mountain.

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BLUEGRASS AIDS IN WEED CONTROL

Early Growth Crowds Out Late Plants

Farmers in Umatilla county are enthusiastically adopting a new method of weed control, and results are proving almost more than they had hoped for. The project is the outgrowth of a casual observation on the part of Walter Holt, county agent, whose attention was attracted to a small patch of bulbous bluegrass which he found growing near Stanfield a number of years ago.

The next season he observed that grass was rapidly spreading to other localities, and in a few years it had become quite common throughout the district.

Much to Holt's surprise, he noted that wherever the bluegrass obtained a foothold, foxtail, chest grass and other weeds soon disappeared. Carrying his investigations farther, Holt learned that the new grass began growing during the late winter and early spring, before other grasses and weeds appeared.

By the time their growing period arrived the bluegrass had established such a dense growth that everything else was crowded out. With the coming of the dry weather in the late spring and early summer, the bluegrass was going to seed. By this time it was too late for weeds to gain a stand and the ground remained

fairly free of other plant growth.

Holt immediately began urging farmers to gather the grass seed and sow it along fence rows and driveways where weed control was difficult, pointing out that dense weed growth in such places provided a perfect refuge for insects and plant pests.

Results of experiments carried out by a number of farmers proved so gratifying that cannery field men organized crews of men during the past year to gather the seed from the grass and sow it along fence rows and driveways in the vast pea fields in the county.

Assistant County Agent Harry Cline also organized a project among 4-H club boys during the spring to gather the seed and sell it to wheat and pea growers.

Known to botanists as poa bulbosa, the grass, in addition to its weed-controlling ability, is highly rated as a forage and pasture grass, and farmers are now turning to the practice of mixing it with their crested wheat plantings to improve pasture conditions.

Texas Woman, 80, Talks

On 'Phone First Time

Beaumont, Texas (UP)—Mrs. Rebecca Holland, 80, of Village Mills found real adventure just 35 miles from her Hardin county, Tex., home. She came to Beaumont (a 45-minute automobile drive) and talked over a telephone for the first time in her life; rode in an elevator for the first time; saw the first liquor openly displayed since pre-prohibition days;

Bend Gets New Building



One of the largest business structures erected in Bend this year was that of Moty and Van Dyke, dealers in automotive and industrial supplies. The big building was erected on property on Bond street purchased from J. N. Hunter. The structure is shown above.

and saw a tall building for the first time in her life.

Mrs. Holland, known to her neighbors as "Aunt Becky," lived all her 80 years in Hardin county without going to the city. Now she expects to see a movie, ride in an airplane, and maybe have a permanent wave—things that she has never done before. The pioneer Texas woman is the mother of 10 children, three of whom now live on the farm with her.

DR. BIRD FEEDS DOVES

Belfast, Maine (UP)—What's in a name? Dr. Hazel V. Bird daily feeds about 300 doves. Last year her grain bill totaled about \$75. She also tends sick and injured doves and other birds brought to her by neighbors.

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