



## PRAIRIE PROJECT MOVES FORWARD TO RECAPTURE PAST

The first 13 acres of a prairie restoration, on 668 acres in the center of the Fermilab main accelerator, were planted in early June. Dr. Robert F. Betz, chairman of the Advisory Committee and a world-famous prairie authority and professor of biology at Northeastern Illinois University, directed the planting with Ray Schulenberg, curator of the herbarium at the Morton Arboretum, and members of the Fermilab Prairie Committee, headed by Tony Donaldson.

Fermilab's Grounds Crew joined the small army of people who have already contributed to the project, expected to produce the world's largest restored prairie and to become an important center of botanical research. Applying their experience with the rich soil found on the Fermilab site, Fermilab's Grounds Crew carried out two plowings of the prairie ground last fall and several discings this spring. With the assistance of Dave Sauer, head of Site Services, and Rudy Dorner, Site Manager, the historic planting schedule was finalized several weeks ago.

More than 400 pounds of seeds including four grasses and fourteen flowers were sown. Representing species typical of this region of Illinois, the seeds were gathered by hand during three weekends last October. More than 200 people from the Chicago suburbs and from Fermilab travelled to the prairie remnant at Markham, Illinois, and to the restoration at the Morton Arboretum to harvest ripe seeds of the plants known to have grown on the Illinois prairie of pre-settlement days.

A "thrashing bee" followed to remove chaff and foreign matter from the seeds, which were then bagged and stored in a closet in the Central Laboratory. In April the precious seeds were "stratified" -- mixed with vermiculite and placed in the cooler of the old cafeteria in the Fermilab Village to simulate the normal effects of winter.

"We are speeding up a process that takes natural forces hundreds of years to complete," Dr. Betz notes. If the first segment of the project is successful, with satisfactory germination and enough growth so that new plants become established this year, another 10-15 acres can be planted in 1976. These two plots, when mature, could furnish seeds for much larger tracts, perhaps 100-200 acres each, and in ten years the project will be complete.

To the uninitiated, "prairie" is the name attributed to grassy, treeless fields, generally associated with the flat open spaces of Midwestern United States from Ohio to Kansas. "Prairie," (from the French, meaning "meadow") is actually the descriptive name given by the Europeans who



...Planting in center of Main Accelerator...



...R. Schulenberg (L), R. Betz operate seed drill...



...Fermilab's Grounds Crew: (L-R) G. Pipkin, M. Roubideaux, R. Hall, G. Provancial, R. Kraft...

PRAIRIE PROJECT (Continued)

first came to the end of Lake Michigan and found the seemingly endless grasslands of Illinois.

To the biologist, however, the prairie is a complicated ecosystem. It consists of grasses, with roots sometimes twenty feet long, growing six feet tall, sprinkled with a wide variety of flowering species which bring a constantly shifting pattern of beautiful color to the expanse where it grows, as each variety comes into bloom. Birds, insects, and wildlife accompany this pattern.

The inter-relationship of the plant life, the animal and insect life, and the survival of the ecosystem through fires and natural hazards, has become the basis of a field of biology similar to the study of forests. Its preservation is viewed by biologists much as is the survival of endangered animal species. Professionals like Betz and Schulenberg miss no opportunity to preserve small prairie remnants, such as in pioneer cemeteries and along long-established railroad tracks. Working with representatives of The Nature Conservancy, they bring to Fermilab's restoration the sum of all that is known about a vanished biological era on the North American continent.

The first pioneer settlers ignored the prairie, thinking it poor soil because it bore no trees. They settled instead near water and in groves of trees. But the rich soil produced by the prairie ecology, once it was discovered, was soon brought under agricultural subjection. The steel plow was invented to subdue the dense root structure of prairie growth. By the time of the Civil War, the prairie had nearly vanished. What grows now are weeds, imported from Europe with settlers' seeds, seen by biologists as aggressive, dominating, undesirable plants, often referred to as "old world weeds."

The rectangular area recently planted in the center of the Fermilab main accelerator is clearly visible from the upper floors of the Central Laboratory. The volunteers also maintain a small plot just off Road D (see map below) in which a sampling of the same species in the Main Ring tract were planted last summer for viewing and study by the public. In another plot, south of Eola Road, a "nursery" plot, adjacent to the Laboratory nursery, contains other rare species, planted in rows for cultivation, from which seeds can be harvested for sowing in the Main Ring over the next few years.

Anyone interested in participating in or learning more about the Fermilab restoration is urged to contact members of the Fermilab Prairie committee, who are: Tony Donaldson (Chairman), Ext. 3734; Dave Cosgrove, Ext. 3977; Joan Harris, 851-5305; Margaret Pearson, Ext. 3351; Tom Saunders, Ext. 3825; Dave Snyder, Ext. 3187.

Work assignments are mailed out regularly to volunteers for planting, weeding, and other special projects. They report as they are able, but more hands are always needed. Volunteers range from serious junior high students to college students, and other men and women of all ages. Everyone is welcome.

\* \* \* \* \*



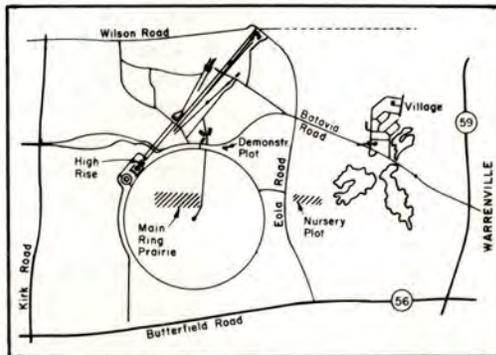
*...Volunteers harvesting prairie seeds last October at Markham...*



*...Bringing home the harvest...*



*...R. Betz prepares precious prairie seeds for storage...*



*...Prairie project locations...*

...Dr. Herman R. Branson, president of Lincoln University, Pennsylvania, visited Fermilab recently and spoke at a Laboratory-wide seminar on the state of minority representation in the sciences. There is "under-representation," he feels. "More effort is needed to attract talented minority students into the sciences by industries, government, and universities," Dr. Branson said.

Exposing junior high and high school students to the field of science to develop and utilize the scientific and technical talents of minorities is one such way to help overcome this under-representation, Dr. Branson told his Fermilab audience.

\* \* \* \* \*



...A gravelled bicycle path was opened last week by Rudy Dorner, Site Manager, that begins at the corner of Sauk Boulevard and Batavia Road in the Fermilab Village. The new path permits residents of the Village to bicycle toward the experimental areas without risking the hazards of the heavy, fast traffic on Batavia Road. It may be the first segment of a bicycle path system at Fermilab if funds permit and if the paths are used. The path is made of limestone screenings which pack down after use and become hard after being rained on. The 4000-ft. path cost about \$6,000. First official users of the new path were Marleigh Sheaff, (R, front), Steve Adler, (L, rear), Gary Duck, just after the official ribbon-cutting by Dorner...

\* \* \* \* \*

## FERMILAB MUSIC CLUB DANCE

Saturday - June 21 - 8-1

VILLAGE BARN

Featuring Los Bucaneros

Spanish rock, Spanish traditional, modern

Cash Bar

Admission: \$3.00 in advance  
\$4.00 at door

Tickets from Larry Jackson, Ext. 4070.

"An Evening of Electronic Music" will be presented at Fermilab on Sunday, June 22, at 7:30 p.m. in the Auditorium. Admission is free and the public is invited.

Playing a computer-controlled music synthesizer, which they have named "Hybrid V," will be Jeff Mack, an employee of Fermilab, and Ed Kobrin of the Center for Music Experiment of the University of California at San Diego. Mack is a computer programmer by profession, contributing the design and engineering skills to the production. Kobrin, with degrees in music from Northwestern University and the University of Illinois, is the composer/musician of the team. The two men have written the compositions to be performed at Fermilab. Kobrin will leave for Europe in a few weeks where he will perform and demonstrate the synthesizer at music festivals there in the next six weeks.

The Mack-Kobrin instrument consists of a number of electronic oscillators, filters and amplifiers similar to those which produce sound in an electronic organ. However, the performer manipulates these sound-producing devices by computer commands rather than by the conventional piano-like keyboard, and he may distribute the four channels of synthesized sound to any combination of sixteen speakers placed around the audience.

The fine acoustics of the Fermilab Auditorium will provide an especially interesting vehicle for this avante garde style. The men estimate that they have invested as much as \$20,000 in their unusual instrument.

"We extend the physical limitations of the musician by using the computer," Mack explains. "Things not possible with conventional instruments are possible with our instrument."

A discussion of the synthesizer's design and an analysis of the compositions by Mack and Kobrin will be included in the program.

\* \* \* \* \*

#### REMINDER...

All persons visiting Fermilab who will be on site for more than one day are asked to go first to the Users Office (first floor east, Central Laboratory) to sign the necessary papers related to their stay on site and to receive an identification card. This greatly facilitates the handling of phone calls and mail.

Anyone working at the Laboratory is required to have in his possession a valid identification card to permit access to Fermilab facilities and the stockrooms. Prerequisite to the receipt of a regular I.D. card is the signing of a Patent Agreement, required by ERDA. (This requirement is waived for short term visitors who are not actually working at the Laboratory and receive only temporary I.D. cards.)

It is Laboratory policy that all the services of the Laboratory including Travel and Housing Offices, and on-site housing accommodations will be available only to those having valid I.D. cards in their possession.

Regular visitors I.D. cards are valid for two years. Anyone having an out-of-date card should stop at the Users Office to renew it.

\* \* \* \* \*

#### CLASSIFIED ADS

ATTENTION - The film "Time & Eternity" will be shown Tuesday, June 24 at noon in Curia II. This movie discusses the fourth dimension: time, and how it affects our daily lives.

FOR SALE - small 4 cylinder air compressor and detail air brush-\$75. Ten speed bike, very good parts. Best offer. Call Fred Cadena, Ext. 3140 or 896-6649.

FOR SALE - Lawn Boy mower, 2 yrs. old, exc. cond.-\$50. Refrigerator, good cond., good for 2nd refrig.-cheap. Call Liz Foster, Ext. 4203.

MOVING - Used furniture for sale. Twin beds, dressers, love seats, recliner, coffee table, expandable dining table w/8 chairs, desk, etc. Good cond. Murthy, Ext. 4153, 665-9734.

FOR SALE - 3 bedroom ranch w/2½ car unattached garage, NW side of Aurora off Sullivan Rd., Appraised at \$30,500. Call 896-5182 after 5:30.

RENT - Motor Home for your vacation and save up to ½ of your vacation expense. Lowest Fox Valley Rates. J. Ticku, Ext. 3734, 897-7519 weekdays.