

*'Now the Woods Are in Leaf, Now the Year Is in Its Greatest Beauty'*

(See story by Finley Markley on page 3)

(See page 1 story by John Paulk)



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FERMI NATIONAL ACCELERATOR LABORATORY

## *Fermi*News

### **GIVE ME A HOME WHERE THE BUFFALO ROAM**

by John Paulk

With 12 new calves already this year and another 6 expected, this will be the most productive year yet for Fermilab's buffalo herd, according to Vic Kerkman who is the buffalo herdsman.

A healthy buffalo cow gives birth once a year, nine-and-a-half months after mating. She will usually lie down when her calf is born; rarely will a cow drop a calf while standing. When a calf is born it does not look like a buffalo because there are no signs of the characteristic hump which develops later. Unlike calves of domestic cattle, a buffalo calf will lose its cinnamon birth color within a few weeks, gradually becoming darker until the brown, almost black, coloring of the adult buffalo emerges. A buffalo calf spends most of its time lying down or nursing for the first three or four days. Sometimes, however, a newborn calf will walk around shortly after birth. →



*(cont'd. from pg. 1)*

A buffalo calf will stay with its mother until another calf is born and then it goes on its own. Papa bull comes over soon after birth to check things out. If everything is okay, he goes on about his business. Although it hasn't happened here, buffalo bulls are known to destroy defective calves.

The Fermilab herd was started in 1969 with a bull from Wyoming and 5 cows from Colorado. In the mid-1970s, 15 additional cows were bought at auctions in South Dakota. In the meantime, the Laboratory has had several sales of surplus bulls and unproductive cows.

The herd currently numbers 57. The plan calls for a maximum size of 80, the herd size which can be sustained in good health on the available pastureland.

The herd is split into two groups, 11 located at Site 50 with the major part of the herd at Site 52 next to Road D. Both sites have barns where the buffalo can take shelter in severe cold weather. The reason for splitting the herd is to get full use of the facilities and to keep peace in the family. Some bulls get pretty mean.

Site 52 has about 80 acres which is divided into three parcels. In the summer,

the buffalo are rotated from one parcel to another about every three weeks. This keeps the pasture grass in good condition. Then, in winter, the entire area is opened up since they are then fed alfalfa hay harvested from a nearby field and protein pellets. Throughout the year their diet is supplemented with mineral and salt blocks.

Vic reports that the herd is very healthy and that he seldom has to call a veterinarian. The biggest concern is worms and he takes care of that by adding medicine to their feed twice a year. When a veterinarian is required, Dr. Koch of Oswego is called who is experienced with buffalo and feels comfortable with them.

When commenting on the increasing number of buffalo being raised in this country, Vic explained that ranchers like them because they don't have to be fed expensive grain as in the case with cattle. On the other hand, they are more difficult to handle. A newborn calf typically weighs 40 pounds. A full-grown cow will weigh about 1,200 pounds and a mature bull will come close to 2,000 pounds. Fortunately they don't push down the fences so long as plenty of feed is available.

Buffalo in captivity have a life expectancy of about 30 years.

# SPRING WILDFLOWERS BRIGHTEN BIG WOODS

by Finley Markley

Fermilab's "Big Woods" are exceptional in both the variety and the profusion of spring wildflowers. It would be necessary to compress the woods of The Morton Arboretum into a couple of acres in order to equal it.

Many individuals who use the Pine Street entrance are aware that about May 1 the woodlands along that road are bedecked with blue flowers. If you are a lucky carpooler with the freedom to look more closely, you are probably also aware that for the preceding two weeks those woods were carpeted in delicate pink. However, it is necessary to park the car and take a walk to discover the two dozen or so other wildflowers beside the wild blue phlox and the pink spring beauties.

The best place to take a walk to see the spring flowers is the cross-country ski trail that starts at the corner of Pine Street and Road A2, across from Swan Lake, about 30 paces west of the big green electrical box. Be sure to check for poison ivy at the beginning. The trail meanders along parallel to Pine Street, then turns along the open meadow to Road B then parallels that road. It turns again to follow Road A2 back to the start. The circuit is less than one mile.



*Look for red trillium or prairie wake robin growing in patches, never singularly.*

Patches of starry white dog-tooth violets, frequently called white trout lilies, are in abundance, along with violets in blue, yellow, and white. There are toothworts, solomon's seals, and blue-eyed marys everywhere. You can't miss the big green umbrellas of the mayapples, but the single waxy white camellia-like flower completely hidden under the leaves is much easier to miss. The flowers are only to be found on the plants with two leaves.

*(cont'd. on pg. 4)*



*Wild blue phlox or sweet william carpet the Fermilab forest and adjoining roadsides.*

Marvin Warner  
April 1, 1918 - May 16, 1982



Marvin Warner ran his last mile Sunday, May 16. A rehabilitated cardiac patient, Marv "Cardiac Kid" made running the focus of his daily routine. He was aware more than most of us of how pleasure is curiously related to pain. His example in running for health and fitness inspired many at the Laboratory. He was one of the founders of the Fermilab Running Club in which he was secretary-treasurer.

Marv's history with Fermilab started in 1967 when he became Manager of Architecture and Engineering for DUSAF, the consortium of architectural engineering firms that was responsible for the conventional construction of Fermilab. Marv was a thorough and well-grounded engineer and left DUSAF in 1973 when the original construction project was complete. In 1976 Marv returned to Fermilab to head the Architectural Services group. Most recently Marv headed the Architectural Engineering group responsible for all design work not associated with the Tevatron.

As a conscientious engineer with boundless energy and enthusiasm for life, Marv leaves his imprint on all of the construction projects at Fermilab. More importantly, he leaves a memory of great respect and admiration with all of us who knew him.

(cont'd. from pg. 3)

Many stately jack-in-the-pulpits (photograph on page 1) can be found but once again only on two-leaved plants. You may have to look under the leaves to find the flower and perhaps even raise the canopy of the pulpit to find Jack. The red trillium is called prairie wake robin although it grows in the woods, not prairies, and opens its flowers at least a month after the robins have returned.

Less abundant in the fragrant April woods is the great white trillium, its greatest appeal being its three-parted simplicity. Besides the great white trillium, other woods at Fermilab contain blue hepatica, one of the first spring flowers, and white-flowered bloodroot, the stems and rootstocks of which produce a bright red-orange dye which American Indians used for

war paint. Almost as early flowering as bloodroot are dutchman's breeches, the shape of the white flowers suggestive of a pair of Dutch pantaloons hanging upside-down. These plants can be recognized by their delicate fern-like foliage close to the ground. Bouquets of white anemones and wild pink geraniums complete the beauty of the Fermilab woods.

So, walk on the ski trail and enjoy the transient transformation of Fermilab's woods into a vast flower garden. Take along a wildflower field guide to help identify any new plant species and a bird guide to help identify the myriad warblers that return when spring is on the land.

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## NOTICE

As all users and many Fermilab people know, the present 400-GeV run is under great stress to complete as many experiments as possible before the extended shutdown needed to complete the Energy Saver. We are therefore pleased that we were able to work out an arrangement with Commonwealth Edison which enables us to extend the run for two weeks in June. However, there will be a financial penalty (aside from paying for the electrical energy used) in FY '83 and in FY '84. The average peak power used during the daylight hours in the month of June will determine these charges.

Under the new agreement, electrical energy used in June will be averaged over the daytime hours for the entire month in order to set the demand charge for the following two years. **In order to minimize this penalty, we must proceed on minimum power utilization during the daylight hours (0900-2200) during the month of June.** We are asking all Division and Section heads to appoint power monitors for this period.

Everyone on site is urged to use only as much electrical energy as absolutely necessary during this time. Magnet calibrations, etc., should be scheduled for off-peak hours. Air conditioning should be shut off or set to the minimum required. Shaving using only battery or straight razor with cold water, etc., etc. If we do a good job, the extra two weeks of important data taking during this run will not result in a significant financial impact for '83 and '84.

Leon Lederman