

# FARM TECHNOLOGY REVIEW

# SPOT-LITE

by Andy Baker, FARM PARK ADMINISTRATOR

MACHINES HAVE TRANSFORMED OUR LIVES. One of the most dramatic areas has been in agriculture, which has traditionally been one of the most labor intensive occupations. Just as the domestication of plants and animals 10,000 years ago allowed a portion of our ancestors to work in non-farm trades and occupations, the tremendous changes in agricultural technology in the last 200 years now permit most of us to be engaged in occupations other than agriculture. Some of these technological changes have been a focus of our Fall Harvest Festival and Antique Tractor Show for years. Now visitors can see a number of milestones of technological change in our machinery building.

Over the years, Lake Metroparks has collected a variety of historical implements, many by donation, which have been stored away in a variety of locations. This past year, a few tools were incorporated into our technology timeline in the Grain Place. The rest were gathered into the new storage building north of the Plant Science Center where they can be viewed all in one place. We have tried to select those implements that represent important changes in farm technology, what we call "milestone" implements. Thus, you can now see an early wooden moldboard plow that was pulled by oxen and typical of the tools used by the first settlers in Lake County, alongside a steel walking plow, a Fordson two bottom plow and a 1980s semi-mounted tractor plow.

A large part of Lake Metroparks' collection consists of horse-drawn implements developed from the 1830s to

the 1930s, the "Horse Interlude" as one historian terms it. Horse drawn plows, cultivators, planters and harvesting equipment show the greater productivity of labor gained with the application of the speedier horse to these new implements. Between 1820 and 1920, the time required to harvest 100 bushels of wheat fell from 250 hours to 25 hours and the percentage of Americans involved in farming dropped from 80% to 30%. At Farmpark, we continue to rely on some of this labor saving horse-drawn equipment such as the Van Brunt grain drill and McCormick reaper-binder to plant and harvest our small grains.

About half of the collection is composed of tractors and tractor powered implements. The antique tractors at Farmpark range from a 1926 Fordson, the first affordable tractor introduced by Henry Ford in 1917, to our still active 1972 John Deere 4020. Initially, many horse-drawn machines were adapted to be pulled behind tractors but soon equipment was made for mounting on tractors. The application of the concentrated energy of petroleum in tractors further improved the farmer's productivity. With the development of the self-propelled combine around 1950, the labor needed to produce 100 bushels of wheat had dropped to five hours.

Since 1950, the biggest advances have been the increased productivity of the plants. The average yield of wheat has doubled and that of corn has tripled, aided by improved seed genetics, fertilizers, herbicides and insecticides. However, machinery has also continued to improve in efficiency and productivity. Now you can get an appreciation for some of those changes in our new machinery building.



*As we have time and resources, we restore and display some of the antique machinery to better demonstrate different farm tasks. Presently, our 1926 Fordson is in the process of restoration by Lake Metroparks mechanic Tony Stallman and volunteers Dave Rettger and Lester Swift. The Fordson which has not run in more than 20 years, will now be able to join in the annual Parade of Power at the Fall Harvest Festival.*