The Cooney Bluebird Tractor
A Locally Produced Agricultural Workhorse for Blueberry Growers
by
Mark Ehlenfeldt and Albert Morison

Growers in the earliest days of the blueberry industry used horses, or mules, with pull-behind disc harrows for blueberry cultivation. It was slow and tedious work, but suitable for small acreages. The 19-teens brought options such as 2-wheel walk-behind tractors, among them, those from Moline Plow Co., Allis Chalmers (the Model 6-12), and Gravely.

But early blueberry growers also desired a ride-on tractor that could navigate narrow blueberry rows. Blueberries were usually planted on 8 foot centers, but with the upper parts of the bush spreading a couple of feet to either side, the effective maneuvering room between rows was usually considerably narrower.

A local response to this need was the Cooney Bluebird, a compact light-weight tractor manufactured from Ford Model A engines, with Model AA and Model TT truck components. These tractors were made by Cooney’s Welding and Machine Shop in Mount Holly, NJ. Cooney’s was a welding and fabricating shop located at the southeast corner of what is now Route 38 and Route 541. This building is now the location of Father and Son Flooring Center (with a large sign that says ‘Carpet’), across from the parking lot of the Loew’s Home Improvement Center. It is said Cooney was not the easiest guy to get along with, but he was a good machinist and was adept at both forge welding and arc welding. For those unfamiliar with the concept of forge welding, the process involves heating metal sufficiently for it to become pliable, then hammering it together, much as was done in traditional blacksmithing. Cooney’s shop made these tractors, and also made hoeing machines among their various agricultural implements.

The earliest Bluebird was probably built in the late ‘30s, when Model T and Model A Fords had been superseded by newer sleeker streamlined autos out of Detroit, and many older Ford parts were available. Bluebirds generally had Ford Model A engines, with either Ford AA or TT truck axles.

First, a bit about the Ford Model A sedans, and the Model AA and TT trucks, the sources of the parts for these tractors. The Ford Model TT truck chassis had been manufactured from 1917 to 1927. The Model A (and Model AA trucks) were manufactured more briefly - 1927 to 1931.

The Model T and TT had the same 177-cubic-inch (2.9 L) inline four-cylinder engine, producing 20 horsepower (15 kW) as standard equipment. When first produced in 1917, the Model TT was sold as a chassis with the buyer supplying a body. The Model TT was very durable for its time, but slow when compared to other trucks. With standard gearing, a speed of not more than 15 mph (24 km/h) was recommended, and with special gearing might reach 22 mph (35 km/h).

The Ford Model AA truck began production in 1928, and was powered by a 201-cubic-inch (3.3 L) I-4 (inline-4) engine. The engine produced a maximum of 40 hp at 2,200 rpm. The engine featured an up-draft carburetor, 6-volt generator, 2-blade fan, mechanical water pump, mechanical oil pump, electric starter and four-row radiator. All of these features were identical to those of a standard Model A Ford sedan except for the radiator. The Model AA was based on a chassis that was similar in design to the Model A Ford (continued on page 2)
sedan, except it was substantially larger and heavier to accommodate the work this truck was designed for. While the Model A sedan had a 3-speed sliding gear manual unsynchronized transmission, the Model AA Ford truck had a four-speed manual gearbox. The transmission was geared lower than that of the Model A Ford sedan to provide more power to move a loaded truck. This lower gearing reduced the top speed of the truck when compared to the Model A. Model A (and AA) production ended in March of 1932. The successors to the Model A were the Model B, which featured an updated 4-cylinder engine, and the Model 18 which introduced a new flathead (side valve) V8 engine (see the note below about V8 hubcaps).

**Now back to Bluebirds.** For Bluebirds, the Model AA or TT truck axle was cut, so that the arms of the central axle section were shortened; the hubs were then rewelded to these shortened arms, producing a chassis that, wheels and all, was about 4 feet wide. The engine and transmission was mounted on a frame of channel steel. The radiator typically came from a Model A, and was modified with bolts on its bottom to mount to the frame. Most models to be seen today have the nickel-plated radiator shell that was standard to Model As. Typical Bluebirds had the 3-speed car transmission. Bluebirds usually had rear wheels made from 16-17” automobile rims, mounted with tractor tires. The front wheels were relatively wide-set for the tractor size, and had relatively large front tires, most often Model A wheels. Interestingly, several photographs of Bluebirds show hubs with V8 hub caps. Early Bluebirds had a manual implement lift lever. Typical Bluebirds were about 4’ wide x 7’ long x 4½ - 5’ high.

Although Bluebirds fit the job they were manufactured for, they were not without their shortcomings. Bluebirds had enough power, but because they used the standard transmission of the Model A sedan, many considered them to be not geared as low as might be desirable for agricultural work. However, some Bluebirds were modifactured/modified with double sets of reduction gears to allow for lower speeds. With their relatively large front tires and wide-set wheels, Bluebirds didn’t turn easily. They had no split braking, as was common on later tractors to assist in maneuvering. Thus, Bluebirds would sometimes skid, rather than steer. Because of their narrow and short wheel base, they also flipped easily. Because they were relatively light, they got stuck easily.

We examined, up-close, a Bluebird owned by one of the authors (Albert Morison) (see online pdf-extras for photos). This Bluebird has an axle from a Ford TT truck. The power source is the Model A engine. Unlike some of the more basic Bluebirds, his has a hydraulic lift, and a 4-speed truck transmission with power take-off (PTO). Al believes his to be a rather deluxe version, and speculates that it was probably built later in the era of Bluebird manufacture. His tractor has Model A front wheels with custom rims, and 1935 V8 hub caps; the rear wheels are believed to be Chrysler rims with tractor tires. His tractor’s top speed is approximately 25 mph.

Ultimately Bluebirds were superseded by one of several other tractors, among them, the Farmall Cub and the Massey Harris Pony. The last was Bluebird probably built in late 40’s or early 50’s.

The Farmall Cub was the smallest tractor manufactured by International Harvester under either the McCormick-Deering, Farmall, or International names from 1947 through 1981 in Louiville, Kentucky. The market of this tractor was the small-acreage farmer, and it was designed by Farmall engineers in the years following World War II to replace the horses and mules still in common use on small acreages. The tractor was offset to the left, while the driver's seat and steering wheel were on the right. This concept was called "CultiVision", resulting in a clear view while working the fields. The Cub sat on a 69½ inch wheelbase, and used a 4-cylinder, C-60 gasoline L-head engine, with a displacement of 59.5 cubic inches. At 1600 rpm, early versions of the C-60 engine produced 9.25 horsepower (6.90 kW) on the belt and 8 horsepower (6.0 kW) at the drawbar. (see online pdf-extras for photos)

The Massey-Harris Pony was a small tractor built in France starting in 1947, by the Massey-Harris company of Canada. The first versions were the same as the Canadian models with a 1-L 4-cyl. Continental engine. Later a diesel version was offered with a Hanomag 2-cylinder 1-L engine of 18/20 hp. rating. The model had several versions, and became the Massey Ferguson 821 when Massey Ferguson was created. (see online pdf-extras for photos)

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The technical descriptions of car, truck, and tractor specifications are taken in large part, and with only modest editing, from the sources below.

http://tractors.wikia.com/wiki/Massey-Harris_Pony
http://en.wikipedia.org/wiki/Farmall_Cub
http://en.wikipedia.org/wiki/Ford_Model_T

Do you know more about Cooney Bluebirds or the Cooney Welding and Machine Shop? Send your information or comments to WhitebogPreservationTrust@comcast.net. Any additional, useful information will be posted in the online version of the Newsletter.

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The Mission of the Trust is to restore, protect and enhance historic Whitesbog Village, in order to preserve the White family legacy and to inspire audiences of all ages to experience:
- the origins and innovations of cranberry and blueberry cultivation
- the rich culture and unique ecology of the New Jersey Pine Barrens.
WHITESBOG EVENT SCHEDULE

For more information call (609) 893-4646, e-mail us at WhitesbogPreservationTrust@comcast.net or visit us on the web at www.whitesbog.org.

June

27 BLUEBERRY FESTIVAL  10 a.m. - 4 p.m.
32nd Annual Whitesbog Blueberry Festival - save the date to celebrate all things blueberry at this old-fashioned festival. Enjoy blueberry picking, live country music, lots of children’s activities, handmade crafts, fine artists, exhibits, baked goods, wagon rides, educational tours and lectures, and lots of family fun. $10 per carload.

July

11 WPT Volunteer Workday  10 a.m. - 3 p.m.
Have fun with friends, working in the gardens, repairing trails, restocking the General Store and working around the Village. Lunch provided.

11 Whitesbog Village Tour  1 p.m.
Stroll the Historic Village, learn about Whitesbog’s history, and visit Suningive, Elizabeth White’s historic home, the worker’s cottages and other buildings of Whitesbog’s heritage. $5 donation per person, reservations requested.

11 Moonlight Walk  7 p.m.
Strawberry Moon. Listen to the night sounds of the Pines, learn about Whitesbog and experience the seasonal changes of the Pinelands. Walks are 3 to 5 miles long, and led by experienced leaders. $5 donation per person, reservations requested.

► National Moth Week - July 18-26
There are thousands of moth species, as beautiful as their colorful butterfly cousins- and just as important to the ecosystem. Join the count - Free.

26 Living History Tour  1 p.m. – 3 p.m.
Tour Historic Whitesbog Village and experience a day in the life of its residents. Interact with the workers, learn how to pick and measure blueberries and propagate blueberry bushes. Meet Elizabeth White and Dr. Coville, the pioneers of the cultivated highbush blueberry. Reservations required. $8 donation per person.

August

1  WPT Volunteer Workday  10 a.m. - 3 p.m.
(See July 11).

1  Whitesbog Village Tour  1 p.m.
$5 donation/person. (See July 11).

1  Moonlight Walk  7 p.m.
Blue Moon. $5 donation per person, reservations requested. (See July 11 listing for details).

15 Whitesbog Village Tour  1 p.m.
$5 donation/person. (See May 2).

29 Moonlight Walk  7 p.m.
Sturgeon Moon. $5 donation per person, reservations requested. (See July 11 listing for details).

September

Cranberry Industry Bus Tours - Register Now for October Tours. View a modern wet-harvest and learn about the history and cultivation of cranberries in N.J. Call for dates and times. Space is very limited. Call 888-272-6264 for dates, rates and reservations.

5  WPT Volunteer Workday  10 a.m. - 3 p.m.
(See July 11).

5  Whitesbog Village Tour  1 p.m.
$5 donation/person. (See July 11).

19  Whitesbog Village Tour  1 p.m.
$5 donation/person. (See July 11).

20  Art in the Park at Smithville Park  10:30 a.m. – 4 p.m.
Help us to kick-off the cranberry harvest by sampling our blueberry and cranberry products grown here at Whitesbog! Be sure to bring the kids. FREE.

26 Moonlight Walk  7 p.m.
Harvest Moon. $5 donation per person, reservations requested. (See July 11 listing for details).

October

3  WPT Volunteer Workday  10 a.m. - 3 p.m.
(See July 11).

3  Whitesbog Village Tour  1 p.m.
$5 donation/person. (See July 11).
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Whitesbog is administered by the State of New Jersey, Department of Environmental Protection, Division of Parks and Forestry as part of the Brendan T. Byrne State Forest.

The Whitesbog Preservation Trust has received a General Operating Support Grant for fiscal year 2015, and a 2015 Special Project Grant from the New Jersey Historical Commission, a division of the Department of State.

Funding for the 2015 Whitesbog Blueberry Festival and the Fiddling in the Forest Concert Series, a Local Arts Project, was made possible in part by the New Jersey State Council on the Arts/ Department of State, a Partner Agency of the National Endowment for the Arts from a grant to the Burlington County Board of Chosen Freeholders, Department of Resource Conservation, Division of Parks.

The Whitesbog Preservation Trust has received a Recreational Trail Grant from the Department of Environmental Protection and the Federal Highway Administration for 2015.
Theodore Budd with a horse-drawn harrow at Retreat, 1935.
Vintage photographs of a Cooney Bluebird and disk harrow.
A good view of the rear axle showing a double-reduction gearbox(lower).
Al Morison’s restored Cooney Bluebird. Note the different rear axle here.
The Farmall Cub.

The Massey-Harris Pony.