

# Field Observation Right From Mini-Helicopter At Field Day

**ANDY ANDREWS**  
Editor

**HOLTWOOD** (Lancaster Co.) — For a second, simply imagine being able to fly around the fields, looking for pests, drought, or disease.

Free as a bird, you can zoom in quickly on some rootworm devastation; or, for an instant, check out a neighboring field where tree or other obstructions make it hard to get to; or, as quick as a hawk, move down to hover next to an alfalfa stand, scanning for insects.

All that's possible with today's technology.

Larry Smith, a man who specializes in remote aerial photography, demonstrated that type of technology. He works for Heli-View, based in Lehighton.

The miniature helicopter, running on methanol, took to the skies on the demonstration fields during Steve Groff's eighth annual Farm Field Day Wednesday.

At a cost of about \$3,200, the helicopter can be fully equipped with real-time video. A trained operator, according to Smith, can

put a set of view goggles on, sit down, and maneuver around the fields — like being in the actual helicopter.

How far can the observer "travel" using this "virtual" observation system? "As far as I can see," Smith said. "When I can't see it (anymore), I'm in deep trouble."

Smith has been working with the helicopter, or remotely piloted vehicle (RPV) system, for about six years. The vehicle, with full-motion video systems from Bolar Heli Research, is fueled by methanol or gasoline and can rise to 500 feet or higher.

Smith has already flown the vehicle around tree tops at golf courses, scouted out and took digital pictures of a roller coaster at Knoebels Amusement Park in Elysburg, and photographed a corn maze in New Jersey.

Agronomic suppliers and crop consultants have looked into technology that would literally put the observer onboard an RPV. Smith's system can hover over a field and look closely at weed species and take digital still photos or real-time video.

The system could be less expensive than using pilots on fixed wing aircraft as field scouts.

Smith said the system uses a 3.3 megapixel digital camera, which can supply glossy color photos of almost anything in the field. Smith has taken photos of golfers at the links, in this case from a relatively high altitude so as not to disturb their golf game, he noted.

With methanol, the RPV can stay in the air about 15 minutes. With gasoline, it can fly for about 45 minutes.

Smith also uses a parafoil system, which uses a lighter-than-air balloon powered by a propeller, for aerial viewing.

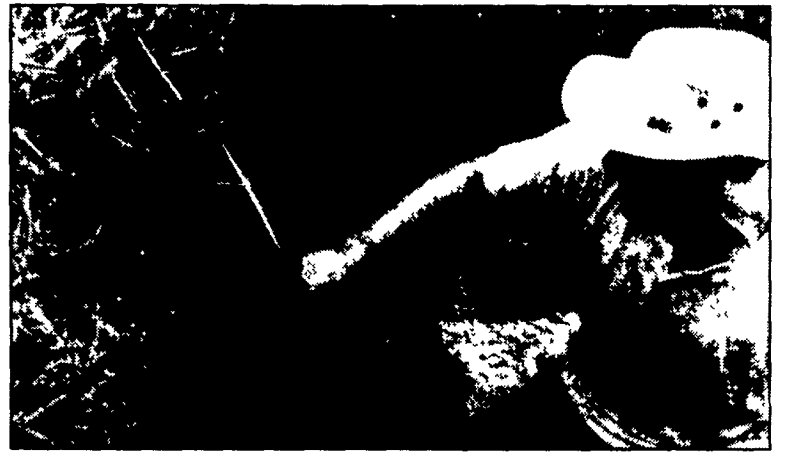
But Smith cautions that, if crop advisers or producers want to invest in the RPV aerial system, "it takes a long time to learn," he said.

Smith was quick to caution them.

"You must know what you're doing. You were not born with the coordination to fly the helicopter," he said. "The helicopter is a very, very, very unstable flying machine."

The miniature helicopter can be outfitted with almost any type of camera. Smith claimed he hasn't lost a helicopter while doing work for a customer.

Also at the field day, which drew in more than 400 producers and agribusiness representatives, Les Stark, hemp researcher/historian, demonstrated a "hemp break" which allowed growers long ago to separate the fibers from the woody stalks of a hemp plant.



**Shawn Lucas, student at the University of Maryland, breaks up the gneiss and schist layers of soil about four to five feet below ground.**

Several areas demonstrated the importance of caring for soil and the factors making up good soil. Shawn Lucas, master's degree candidate at University of Maryland, showed the importance of good drainage in soils. He provided students attending the field

day with information about soil layering, showing them the gray, sandy gneiss and schist layer, four to five feet down in a trench, and the upper, worm-aerated, areas.

The field day also demonstrated a conservation subtiller and no-till vegetable transplanter.



**Chad Shafer fuels the mini-helicopter with alcohol before flight time Wednesday at the Groff field day.**



**Les Stark demonstrates a "hemp break" at the Groff field day.**



**Steve Groff, on tractor, demonstrates no-till vegetable transplanting.**



**Kindergartners from Camp Zone, Lancaster, attended with teacher Jessica James, standing at right. They inspected a "soil horizons" exhibit, filling plastic tubes with different soil types, sponsored by the Chester County Conservation District.**

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**August 1, 2001**  
Joseph Musser Farm 9:00 am - 1:00 pm  
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**August 3**  
Pleasant View Farm, The Rodney Metzler Family 9:00 am - 1:00 pm  
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**Pre-registration Requested:**  
Musser farm registration can be made with county agents George Hurd or Jere Wingert at 717-263-9226, or Robb Meinen at 814-865-2987 or rjm134@psu.edu

Metzler Farm registration can be made with Robb Meinen as listed above

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**Directions to the Musser Farm:**  
From Shippensburg take Rt 533 West Turn right onto Spring Run Rd Turn left onto Roxbury Rd Turn right onto Mongul Hill Road! Turn left into the 3rd drive, which is the farm lane

**Directions to the Metzler Farm:**  
From Rt. 866 take Cove Lane Rd to the West It is the only road to the West between Curryville Agway and the Altoona Blair County Airport. Travel on Cove Lane Rd. until you see the sign for Pleasant View Farms, The Rodney Metzler Family, and turn left into the farm lane