

# Ag Engineering Students Weld Their Way Through College

NEWARK, Del.—The roar of a welding torch and the whirring of drills assault the ears as you enter the University of Delaware agricultural engineering lab in Worrlow Hall. Undergraduates are intent on carrying out their professor's design plans for machinery that could revolutionize the way that processing vegetables are harvested.

John Filasky, a sophomore in the College of Agricultural Sciences, is earning tuition money. Having worked on his family's farm machinery in Middeltown, making adaptations, repairs and maintenance, he was a good candidate for Dr. Jim Glancey's machine project.

Ben Postles, another sophomore, also qualified for Glancey's machine shop. Postles has been adapting farm equipment on his family farm in Milford since he was 10 years old—building a carrot line to sort and clean carrots and modifying a no-till drill for pea planting.

Glancey, a professor of agricultural engineering, hired both undergraduates to work on plans he designed for improving machinery used by the vegetable-processing industry. Filasky is working on a small-scale cleaner for peas and lima beans. Postles is making an attachment for a harvester. Funded by a college competitive grant and the Delaware Department of Natural Resources and Environmental Control, the adapted machinery will be ready to test this June.

But why a cleaner and a harvester?

"Right now about 10 percent of what enters the processing plant is debris that's being hauled in from the field," Glancey said. "Large vegetable-processing plants can use in excess of one million gallons of water a day cleaning the harvested product. In the Delmarva region, even cutting the amount of water needed by 10 or 20 percent would add up to millions of gallons of water saved."

Glancey has designed a small-scale cleaner for use in the field that will follow a three-step process: a dry shaking in a sieve to separate the pods and debris, an air blast that blows out the leaves, a spray that uses the minimum amount of water needed to wash out the dirt. He also designed two attachments for a harvester donated by Draper-King Cole Inc. These attachments will gather more of the crop while picking up less debris from the field. A brush-like attachment will allow for a cleaner lima bean harvest and a belt-like attachment will be used when harvesting peas.

"My approach and philosophy is that students have ideas, but they don't have the analytical tools, the methods, or the knowledge of materials available to them," Glancey said. "Hiring undergraduates gives them an opportunity to get involved in a practical project that will develop their technical skills while they are learning analytical skills in course work."

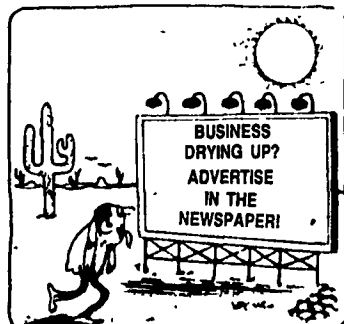
Both students are already reaping benefits from the project.

"Since I started working, it's been easier to understand what Dr. Glancey is saying," Filasky said. "Once you start thinking along his lines, it makes sense."

Postles also has been pleased to have some of his design concepts endorsed by his professor. "In this project I'm actually coming up with some ideas and Dr. Glancey approves them," he said. "The project makes you think in a more practical sense."

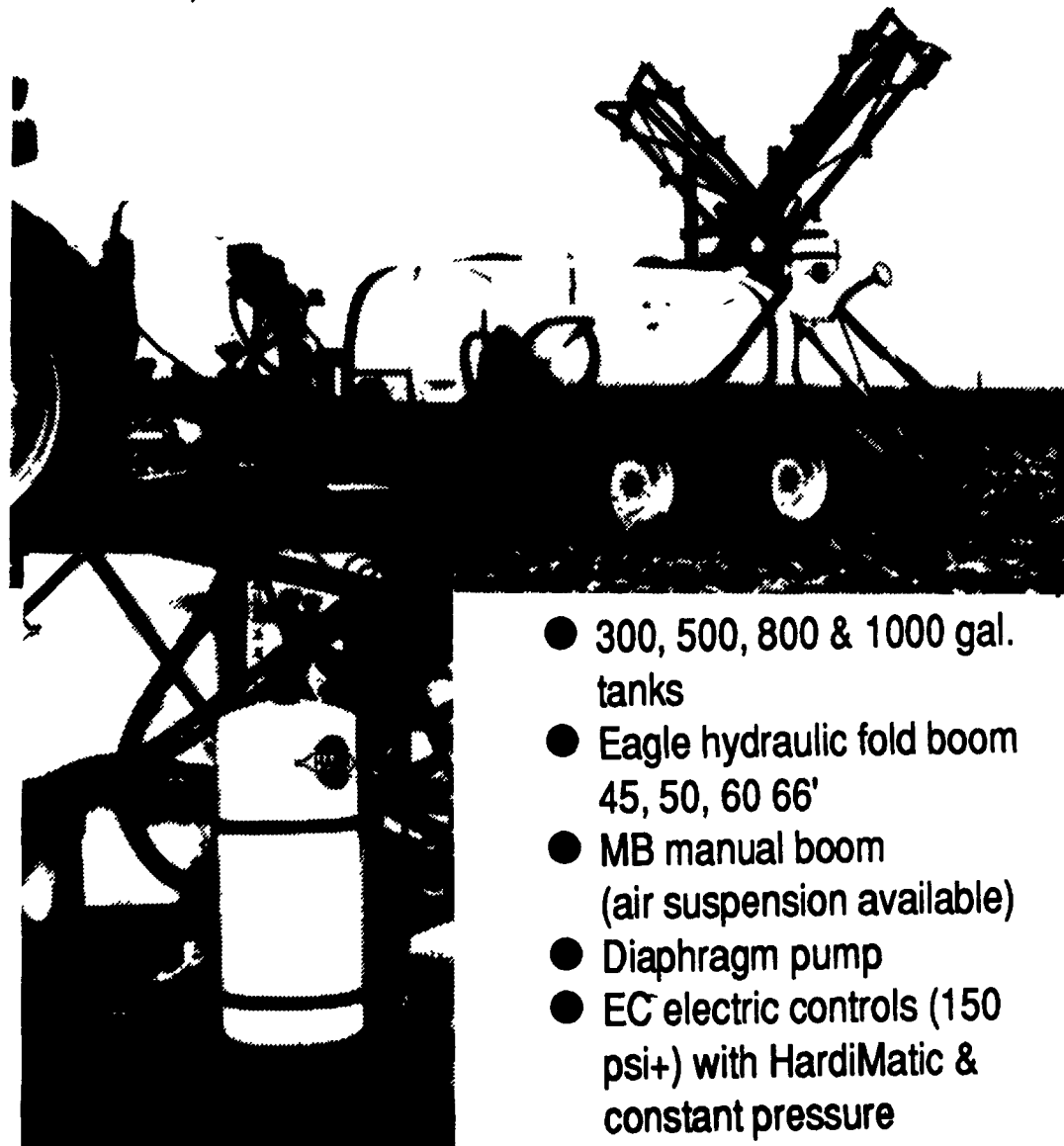
Postles sees another practical use for the project.

"This kind of work is a good thing to have in your back pocket," he said. "It's a resume builder. I'll be glad to have done it down the road. Plus, I like doing it."



# TRAILERS

for pre-and post-emergence applications with a high level of performance



FOAM MARKER

- 300, 500, 800 & 1000 gal. tanks
- Eagle hydraulic fold boom 45, 50, 60 66'
- MB manual boom (air suspension available)
- Diaphragm pump
- EC electric controls (150 psi+) with HardiMatic & constant pressure
- Snap-Fit Color Tips
- Top drain & top suction

- Safety accessories available:
  - chemical inductor
  - clean water dispenser
  - boom flushing & tank rinsing systems



## PENNSYLVANIA

<b>BLOOMSBURG D&amp;E EQUIPMENT</b> 307 Edgar Ave. 717-784-5217	<b>EVERETT MORRIS INTERNATIONAL, INC.</b> Rt. 26 North 814-652-6101	<b>LYNNPORT KERMIT K. KISTLER</b> Rt. 143, 99 King Hwy. 610-298-2011	<b>MILL HALL DOTTERER EQUIPMENT</b> Route 64 1-800-356-3397	<b>SHILOH FARM RITE, INC.</b> 122 Old Cohansey Rd. 609-451-1368
<b>CHAMBERSBURG CHAMBERSBURG FARM SERVICE</b> 975 S. Main St. 717-264-3533	<b>KITTANNING W.C. CRYTZER EQUIPMENT, INC.</b> Route 85 412-543-2441	<b>NEW ALEXANDRIA LONE MAPLE SALES</b> Route 119 412-668-7172	<b>STONEBORO ELDER SALES/SERVICE</b> Greenville Sandy Lake Road 412-376-3740	<b>MARYLAND</b>
<b>CRESSON/ALTOONA HINES EQUIPMENT</b> Cresson - 814-886-4183 Altoona - 814-742-8171	<b>KLINGERSTOWN STANLEY'S FARM SERVICE</b> RD #1, Box 46, Off Rt. 125 717-648-2088	<b>NEW HOLLAND ABC GROFF, INC.</b> 110 S. Railroad Ave. 717-354-4191	<b>TOWANDA SPE INC.</b> Tomahawk Rd. 717-265-4440	<b>FREDERICK D.W. OGG EQUIPMENT CO.</b> 5149 Cap Stine Rd. 301-473-4250
<b>EASTON GEO. V. SEIPLE &amp; SON, INC.</b> 1521 Van Buren Rd 610-258-7146	<b>LEWISBURG ERDLEY FARM EQUIPMENT</b> Salem Church Road, Off Rt 45 717-524-2408	<b>NEW RINGGOLD ECKROTH BROS. FARM EQUIPMENT</b> Rt. 443 & 895 717-943-2131	<b>TUNKHANNOCK BARTRON SUPPLY</b> Route 92 717-836-4011	<b>LINEBORO WERTZ FARM EQUIPMENT</b> 4132 East Main 1-800-839-1992

## NEW YORK

<b>CAZENOVIA CAZENOVIA EQUIPMENT</b> 3200 Rt 20 East 315-655-8620 3987 Rt. 11 South, Cortland 607-756-5693	<b>CLYMER GALLUP &amp; TEN HAKEN</b> 8922 W. Main St. 716-355-4236	<b>NEW HAMPTON SOSLERS GARDEN &amp; FARM EQUIP. INC.</b> Rt. 17M (Near Middletown) 914-374-3621	<b>RIVERHEAD LONG ISLAND CONSUMER-AG, INC.</b> 1241 Old Country Rd 516-727-8700	<b>HARDI</b>
--	--	--	---	--------------