

## 4-H spring fair winners announced

Project winners at the annual Delaware County 4-H Spring Fair held at the Granite Run Mall, Media, have been announced by Elmore R. Hunter, Urban 4-H

agent with the Penn State Cooperative Extension Service.

Over 200 4-H members exhibited for judging the projects they had worked on during the winter

months. The following are champion and reserve champions respectively of the projects which they entered.

**Indoor Gardening:** Decorated Pot - Shawn Cassidy, Marcus Hook; Christine Tiffany, Verna Jeant, Shawn Gréaves, Chester; Begonia A - Maureen Cross, Upland; Crystal Kitt, Chester; Begonia C - Chris Nurell, Chester, Lisa Speed, Media; 1981 Ivy Wreath - Vincent Seals, Chester; John Grover, Norwood; Fall 1983 Geoff Nangle, Middletown; Duane Godshall, Ridley.

**Woodworking:** Decorated: Michele MacRone, Ridley; Kelly Dostillo, Ridley; - Woodworking I: Maria Gentile, Woodlyn; Tim Kapishki, Upper Darby; - Woodworking II: Eddie Sheehan, Newtown Square; Nicole Peaples, Rose Tree; - Woodworking III: John Casaneckia, Holmes; Kerry Kynett, Rose Tree.

**Archery** - Unit I: Chris Smith, Springfield; Marc McIntire, Springfield; Unit II: Stephen Harmon, Matt Trumbull, Middletown.

**Rocketry** - Unit I; Tom Lukenbach, Norwood; Nancy

Parker, East Lansdowne; Unit II; Jeff Purfield, Springfield; Unit III; Bill O'Brien, Springfield.

**Needlepoint** - Duane Godshall, Marc Hoffman, Ridley.

**Clothing and Textiles** - Denise Ditmore, Collingdale.

**Demonstrations** - Garner Gollatz, Media; Jason Hess, Newtown Square; Mickey Hess, Media; Patrick McGrath, Media; Lynoor Hiller, Middletown; Melissa Newtown, Upper Darby; Wanda McKiltrick, Havertown; Lauren Weaver, Haverford.

Spectators had an opportunity to choose their favorite poster. Mickey Hess, Media, was chosen first place winner by the nearly 400 persons who voted. Second place went to Jason Hess, Newtown Square, and Matt Trumbull, Middletown was in third place.

During the fair the 4-H Drill Team put on a performance and Robert Flickenger of Marcus Hook performed magic performance on Friday night. For information on membership or leadership call the 4-H office at 565-9070. Penn State is an affirmative action, equal opportunity university.

## 4-H Dairy Club

The Central 4-H Dairy Club met on March 12 at the home of Rodman Thompson, Dr. David Kunselman gave a short program on "A Factory Designed For Making Milk."

The next meeting will be the on April 9 at the home of Steve Eisenhart. Ray Branus will speak on "Feeding Calves Ad Lib Way and Dairy Beef."

## 4-H Horse and Pony Club

The reorganizational meeting of the Saddle Cinches 4-H Horse and Pony Club was held on March 26 at the home of leaders Keith and Kendy Allen.

The club elected the following officers: Rhonda Gibble, president; Lesa Guthrie, vice-president; Yvonne Peters, secretary; and Vickie Creighton, treasurer.

The club's next meeting will be on April 23 at the home of club member Kathy Smith.

## Star disappears

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compared with the sun's 8 billion to 10 billion years, says Stencel.

The fact that its' relatively short-lived could mean that its companion has not yet formed, he notes, or that it somehow is preventing its companion from forming.

At least 55 professional and amateur astronomers in about a dozen countries have telescopes pointed toward Epsilon Aurigae to try to detect its secret companion. Besides groundbased instruments taking photometric, spectroscopic, polarimetric, and infrared measurements, satellites also are making ultraviolet and infrared observations.

"It has to be protoplanetary system. I don't know how it could be anything else," says astronomer James C. Kemp of the University of Oregon, who bases his statement on preliminary results of his monitoring of the polarized light.

Kemp and his assistants have been watching Epsilon Aurigae since late July 1982, through telescopes at the Pine Mountain Observatory, perched 6,300 feet up in the mountains of Oregon's central desert region. His research is supported in part by the National Geographic Society.

"The pattern of polarized light indicates that the eclipsing body is a highly organized dense disk strongly condensed and probably rapidly spinning. Presumably there is a star buried in the middle that holds it together. Given what we know of the formation of planets, this disk seems to have the right properties," Kemp says. "It may be in the process of condensing, shrinking, and cooling into cooler gaseous blobs that may further condense into planets — at

the same time becoming flatter and flatter."

At this point, his studies indicate that the disk is about 100 million miles thick, with a billion-mile diameter. However, preliminary infrared measurements by Dana E. Backman of the University of Hawaii show the disk to be somewhat thicker. Epsilon Aurigae's mysterious companion was first thought to be disk-shaped and dense by astronomer Su-Shu Huang of Northwestern University in 1965.

It may be about a year after the current eclipse ends before scientists will be able to agree about what they saw, Stencel says.

"It's a matter of comparing notes from all sources and trying to decide what best explains the data," he says. The infrared studies, which can probe regions that appear transparent in ordinary visible light, may hold the key.

"With infrared we hope to see through to what's going on in the center, whether there's a hot center, a cold center, or none at all," says Stencel.

An orbiting infrared telescope, which last year provided the first direct evidence of other solar systems, is expected to give clues about Epsilon Aurigae when further data are analyzed. The Infrared Astronomy Satellite found two potential planetary systems — around the stars Vega and Fomalhaut.

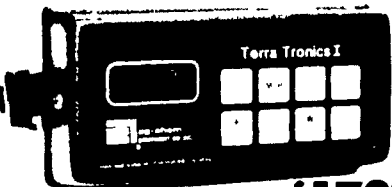
Barring some astronomical surprises, Stencel believes scientists should be able to say the same thing about Epsilon Aurigae. "I hope those studying the eclipse of 2009 to 2011 will be affirming what we have discovered," he says.



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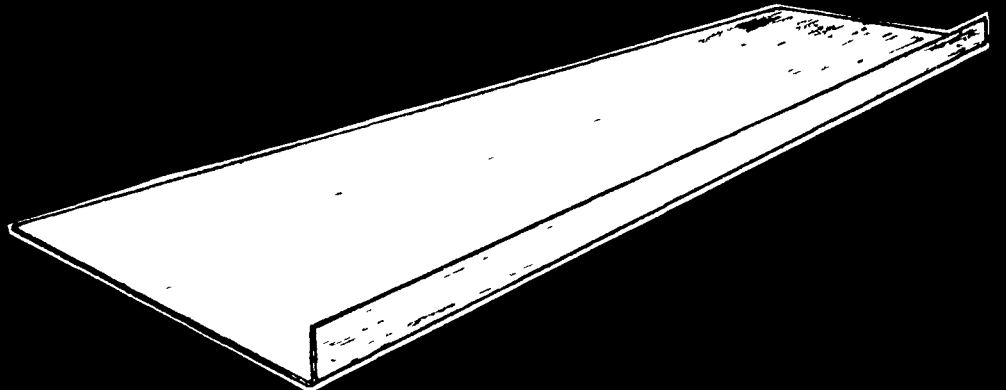
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