Solar Education for Extension Workshop

by Rebecca Senior

- I participated in a solar workshop for educators
- We learned ways to demonstrate solar energy to our clients in Maricopa County
- We built a solar training tool, check it in action on the south employee entrance tomorrow morning.
- For more information go to Maricopa file: Solar Education for Extension Workshop

THE UNIVERSITY OF ARIZONA
College of Agriculture & Life Sciences

WESTERN SARE
Sustainable Agriculture Research & Education

SOLAR EDUCATION FOR EXTENSION WORKSHOP

- *Learn how a solar module works*
- *Hands-on experience with solar modules and tools*
- *Build a solar training tool for your county center*
- *Resources for teaching solar energy to your clients*

DATE:

Friday August 14
8:00 AM - 5:00 PM
Refreshments & lunch provided

LOCATION:

UA Maricopa Agriculture Center
37860 W. Smith-Enke Rd.
Maricopa, AZ 85138
520-374-6380

REGISTRATION:

$15.00/person *Reserve your seat by August 3, 2015*

Contact:
Kelly Keyser- kmkeyser@email.arizona.edu, 520-621-2418
For payment by department funds, please contact your Business Office to pay with an Internal Billing in UAccess Financials: Use account number 2465300- WSARE

Limited seating - One set of materials per County Office/Center

QUESTIONS:

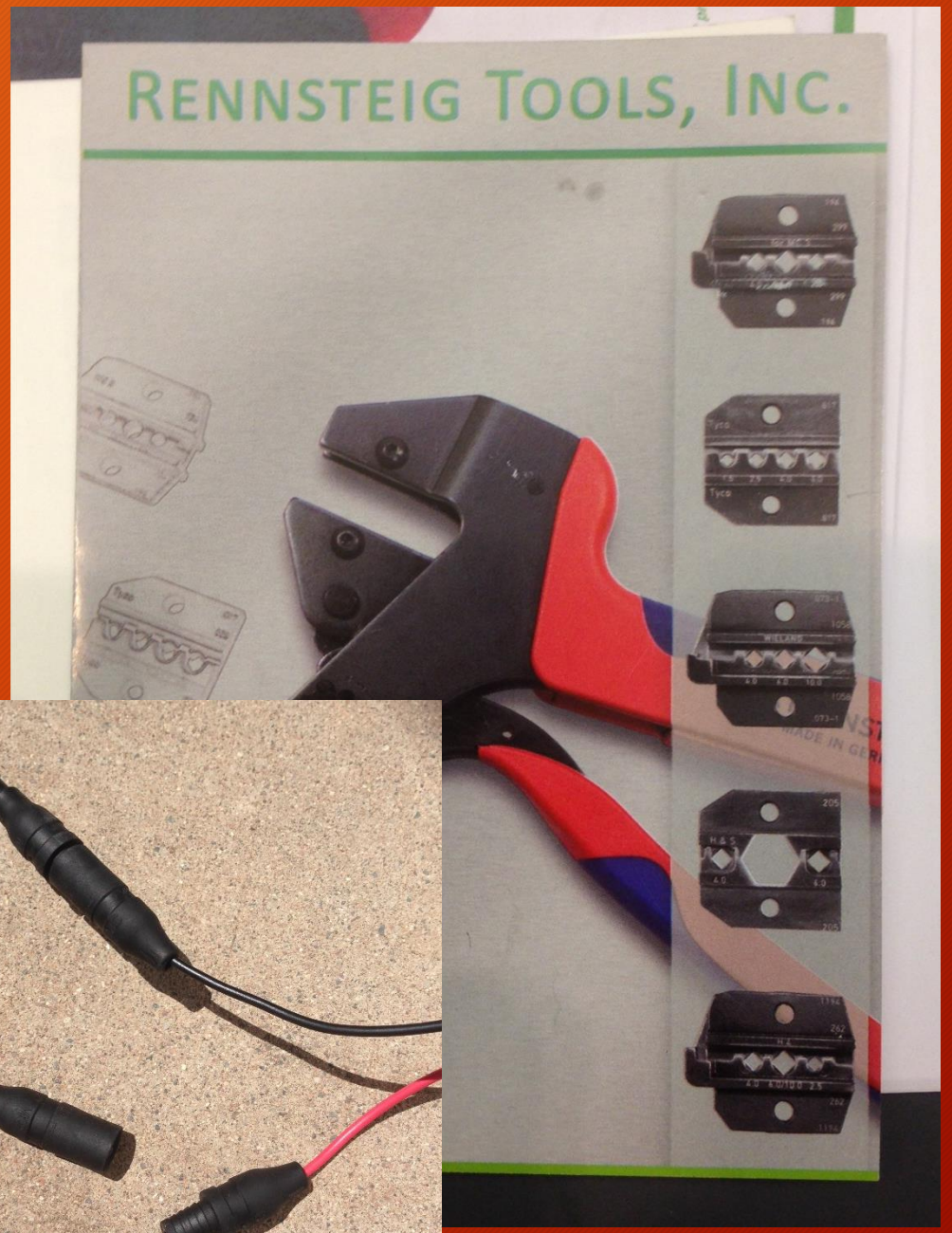
Call or email Dr. Ed Franklin (520) 940-3718
eafrank@ag.arizona.edu

- Dr. Ed Franklin *Associate Professor* & Coordinator, Agriculture *Technology Management* Dept. of Agricultural Education explains the bilge pump to three participants

- Each participant received a kit with parts to make a solar fountain and tools to help demonstrate concepts

- We measured and cut pipe

- German engineered tools were used to make professional connections for our PV panel to the bilge water pump
- Durable waterproof rubber connectors also allow quick changes during demonstrations



- Connecting two panels, one in series and one parallel demonstrated the advantages of a parallel configuration
- One being more wattage, resulting in a stronger flow through the pump

- Dr. Ed showing a stainless steel pump that is powered by the nearby 34.4 volt solar panel
- Next spring he will be training extension personnel on this more powerful system

- 34 volts of electricity is powerful. The PV Disconnect box provides safety when locked in the off position
- Features built into the system help educators safely enjoy their future workshops

- We learned other safety tips like using a locking electric connection case to control a connection either being made or disconnected at the wrong time

- Power from the solar panel needs to be wired into the pump connector box

- Dr. Ed wires the PV panel to the pump

- Water flows

- Solar power is filling the black livestock tank from the white source tank

- We learned how to use our multi meters to test power output

- Is Stacy DeVeau from Yavapai County looking for fish?
- No, she is monitoring the initial fill from the black garden hose.

- Banjo couplings make leak-proof and easy to set up connections.
- Another well designed part of the demonstration system

- A 34.4 volt solar panel powers a pump
- The large diameter white hose returns water to the white supply tank as this is a recirculating demonstration system.

- Mike from Gila County Extension would like to help his rural clients water their gardens with this larger capacity system

- Dr. Ed provided us with training, demonstration kits, tools, and sources for more information
- Solar Schoolhouse sells kits and a book of projects which we received
- See information and sources files on:

PXDF/workgroup/Maricopa/Solar Workshop