

impact

of the College of Agriculture and Life Sciences



Economic Development and Quality of Life for People and Communities **Operation Cool Shade**

Issue

Studies show that proper shading of the home can reduce energy consumption by as much as 20 percent. The University of Arizona Cooperative Extension in Pima County joined with Tri Co Electric Cooperative to distribute shade trees to residents for energy conservation.

What has been done?

Tri Co Electric Cooperative and Pima County Extension provided trees and training, respectively, to interested residents. A requirement of the program was that trees be planted in locations around the house to ensure maximum shading. The residents received training from Extension on correct placement, planting and care of trees. Master

Gardeners were trained to conduct training for program participants on the correct selection, placement, planting and care of shade trees. Four programs were conducted in 2002 with 117 participants, by 8 Master Gardener volunteers. An additional four Master Gardeners staffed a tree planting and care answer booth at the tree distribution day conducted by TriCo Electric Cooperative's headquarters in Marana. Tri Co employees conducted follow up inspections to ensure that trees were planted in the pre determined locations and that the trees remained in good health. (Follow up information and assistance with tree care is provided by the Pima County Cooperative Extension.)

Impact

As a result of Operation Cool Shade, in 2002, 1,469 trees were distributed to 509 electric cooperative customers. Since 2000, a total of 5,081 trees have been distributed to 1,790 customers. Studies have shown that proper shading can reduce home energy consumption by as much as 20 percent. Thus given the average peak household consumption (July, August and September) of 7,263 kilowatt hours and the current rate of \$0.0953 per kWh, the average projected savings for individual households participating in Operation Cool Shade for the three-month period is 1,453 kWh, with a dollar savings of \$138.47 during that time. In terms of all 509 participating households, the projected savings is 883,424 kWh and \$70,481 for the peak three-month summer period.

Funding

TriCo Electric Cooperative

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