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Study on 'non-ideal' stations under way

 [Winter 2008](#)

Weather stations within the CIMIS network that do not conform to the basic definition of reference stations are commonly known as non-standardized or Non-Ideal sites. The non-ideal sites could be situated on surfaces other than grass but still need to have sufficient upwind fetch and uninterrupted solar radiation.

CIMIS, in cooperation with the California Urban Water Conservation Council (CUWCC), is conducting a statewide study to investigate the possibility of installing stations in non-ideal environments and converting the collected data into a reference ETo.

This is to be achieved by comparing the non-ideal stations with standard reference stations in a given study area. The goal is to take data from the non-ideal sites and develop correlations with the corresponding data from the standard reference sites. These correlations will then be used to convert the non-ideal data into equivalent reference data after the completion of the study.

Non-ideal stations are desirable because urban environments are likely to have a shortage of standardized reference sites due to space limitations for adequate grass fetch. Weather data from non-standardized sites are likely to be erroneous in representing the microclimates of irrigated surfaces. Air temperature on warm summer days, for example, can be higher in an urban environment compared to adjacent vegetated surfaces with no water stress.

Because of the increased demands for CIMIS data from nonagricultural sectors and the difficulty of finding standardized sites in these areas, it has become necessary to undertake non-ideal site studies comparing non-ideal and reference weather stations.

Equipment requirements for non-ideal stations are quite similar to standard CIMIS stations. A basic non-ideal station costs approximately \$4500, but most cooperators upgrade to include all CIMIS sensors for an additional \$900. Currently there are two fully functional non-ideal stations up and running. Over the course of the next several months, six more stations are scheduled to come on line.

CIMIS and CUWCC welcome any one or any group interested in taking part in this important investigative study and encourages those interested to contact Cayle Little at (916) 651-7218, or Kent Frame at (916) 651-7030.

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