These comparisons can and will be used to determine trail routing and to designate those areas on a trail that need construction to prevent undone deterioration.

References


Estimating Mean Annual Soil Temperature from Mean Annual Air Temperature in Northern California

Dennis J. Lytle

In support of soil survey operations in the Yuba County soil survey area, soil temperature measurements were taken from five plots on an elevation transect from the central valley to the Sierra Nevada mountains in Yuba County during the period from August 1982 to November 1985. Air temperature data were available for the same time period from weather stations at or very near the five soil temperature plots. The objective of this study was to determine the relationship between mean annual soil temperature measured at 20 inches and mean annual air temperature. Suggestions are also given for establishing reliable soil temperature transects.

Description of the Study Areas

Table 1 lists some of the characteristics of the study areas. All the soils in the study areas are well drained. The soil series at plot 1 is San Joaquin, a member of the fine, mixed, thermic family of Abruptic Durixeralf (Soil Survey Staff, 1975). Air temperature was taken from the weather station at Beale Air Force Base (AFB) about 3.2 miles north of the soil temperature plot.

The soil series at plot 2 is Sobrante, a member of the fine-loamy, mixed, thermic family of Mollic Haploxeralfs. Air temperature was taken from the weather station at the Univ. of California Sierra Field Station, about 3.6 miles southeast of the soil temperature plot.

The soil series at temperature plot 3 is Surnuf, a member of the fine, oxidic, mesic family of Ultic Palexeralfs. Air temperature was taken from the

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