

SOLAR RADIATION IN EUROPE

From the *British Grower Magazine*, Jan. 5, 1984, the net solar radiation for December 1983, and the longterm averages for the same month were:

Location	Dec. 1983 total for month	Average for month
GCRI (West Sussex)	21.3 KWH/sq.m.	20 KWH/sq.m.
Lee Valley EHA (Herts)	18.0 KWH/sq.m.	16.1 KWH/sq.m.
Naaldwijk, Holland	18.2 KWH/sq.m.	15.3 KWH/sq.m.

From the records at Fort Collins, the total energy for December, 1983, was 56.3 KW-hrs/sq.m. From the weather records, the longterm average for Denver is 8.3 mega-Joules per sq.m.-day which translates to about 71.5 KW-hrs/sq.m. The average daily solar radiation in December for other U.S. locations is:

Location	Mega-joules/ sq.m.-day	KWH/sq.m.-day	Est. total for 31 days in Dec. (KWH/sq.m.)
Colorado Springs	8.9	2.5	76.6
Phoenix, AZ	10.6	2.9	91.3
San Diego, CA	10.3	2.9	88.7
Orlando, FL	10.5	2.9	90.4
Chicago, IL	4.6	1.3	39.6
Baltimore, MD	5.7	1.6	49.1
Seattle, WA	2.4	0.7	20.7

These records show that West Sussex, England has, on the average, only 28% of the total energy that is usually available in Denver, CO. Only in regions of the U.S. such as

the Northwest, Upstate New York, etc., does monthly radiation drop to levels commonly encountered in Northern Europe.

Sonneveld, C. and W. Voogt. 1983. Studies on the salt tolerance of some flower crops grown under glass. *Plant and Soil*. 74:41-52.

The salt sensitivity of carnations, geberas, anthuriums, chrysanthemums and hippeastrums was investigated. Two different cultivars of each species were grown. The electrical conductivity (EC) of the irrigation water (EC_w) ranged from 0.2 to 3.9 millimhos/cm. Salt applications had a deleterious effect on development of all flower crops. Carnations and chrysanthemums were least sensitive. The salinity thresholds were low for most crops — that is, less than 0.6 mmhos/cm. Tissue analysis showed that sodium and chloride contents in particular were affected by salt applications. Ions studied were sodium, calcium, magnesium, chloride, bicarbonate and sulfate.

Anthuriums had a specific sensitivity to sodium chloride. In most crops, the flower weights decreased linearly from that treatment which had the fewest salts. For carnations (cv 'Scania' and 'Nora Barlo'), the yield decrease per mmho salinity of the irrigation water was 6.9 and 5.5% respectively.