

CCEA Newsletter

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CCEA is a research organization dedicated to the improvement and vitality of the Controlled Environment Agriculture Industry. CCEA is funded by Industrial and Grower Partners who contribute a yearly partnership fee. Satellite partnership is available to growers for a modest fee. Information on CCEA is available from: William J. Roberts CCEA Director Bioresource Eng'g Department, Rutgers The State University, 20 Ag Extension Way, New Brunswick, NJ 08901 -8500 732 932 9534 Voice 732 932 7931 Fax E-mail roberts@bioresource.rutgers.edu



Vision Statement
 CCEA, The Center for Controlled Environment Agriculture of NJAES of Rutgers University, a partnership among growers, industry and researchers, will devote itself to research and transferring information required for an economically viable and environmentally aware controlled environment agriculture industry. We will particularly strive to identify future trends, critical issues, appropriate emerging technologies and provide leadership for opportunities which challenge world-wide controlled environment agriculture in the 21st century.

Open-Roof Greenhouses On the Way

The picture below shows a view on September 3, 1998 at 2:00 PM of Neil De Groot's greenhouse in Pompton Plains, NJ. The open roof greenhouse, manufactured by Van Wingerden Inc of Horseshoe, NC is being used for producing poinsettia's for Christmas and mums for the fall season. You can note the fully open roof at the top of the picture and the amount of light striking the crop and the walkway, in this case the same amount of PAR energy as available outside. The temperature in this range was 85°F, 3°F warmer than outside. The roof is double glazed with



View of Neil De Groot's Greenhouse Pompton Plains NJ 9/3/98 2:00 PM

The adjacent greenhouse, shown on page 2, is glazed with double poly and the picture shows the thermal screen in place to reduce temperatures in the growing area. The plants in this area were experiencing reduced PAR light because of the required thermal shade to reduce the temperature and the ambient temperature was 10 degrees warmer than outside. The camera is automatic so an exact visual

implications are clear that this crop is growing at a reduced light level and at elevated temperatures. This is normal procedure for greenhouses operating at this time of the year in our latitude.

Dr. Sase is using the data obtained from Neil De Groot's range in the model he is developing to study open-roof designs.

The photo below, showing the roof fully open was taken at Ken Van

Wingerden's, Neil's next door neighbor and cousin. Ken's dad and Neil's mom are brother and sister.

It's good to see these young men moving ahead in the greenhouse industry. They are following in their dad's footsteps and making necessary changes as they go.

We wish them the greatest success with their new greenhouses. *Photos were taken by your editor with a digital camera.*



Neil De Groot's conventional double poly greenhouse with thermal screen in position. 9/3/98



Ken Van Wingerden's open roof, double poly glazed greenhouse, Pompton Plains NJ 9/3/98