

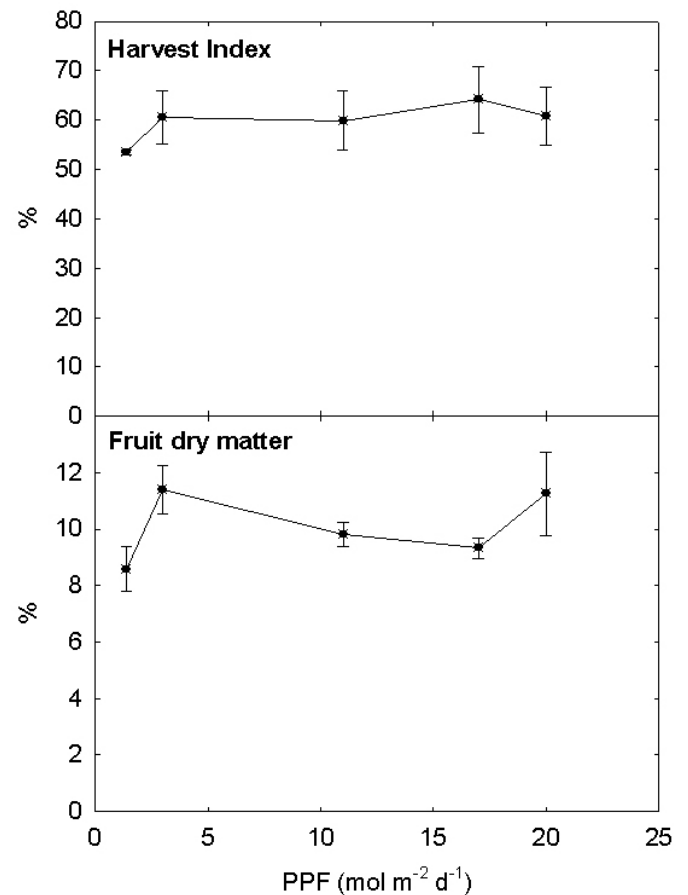
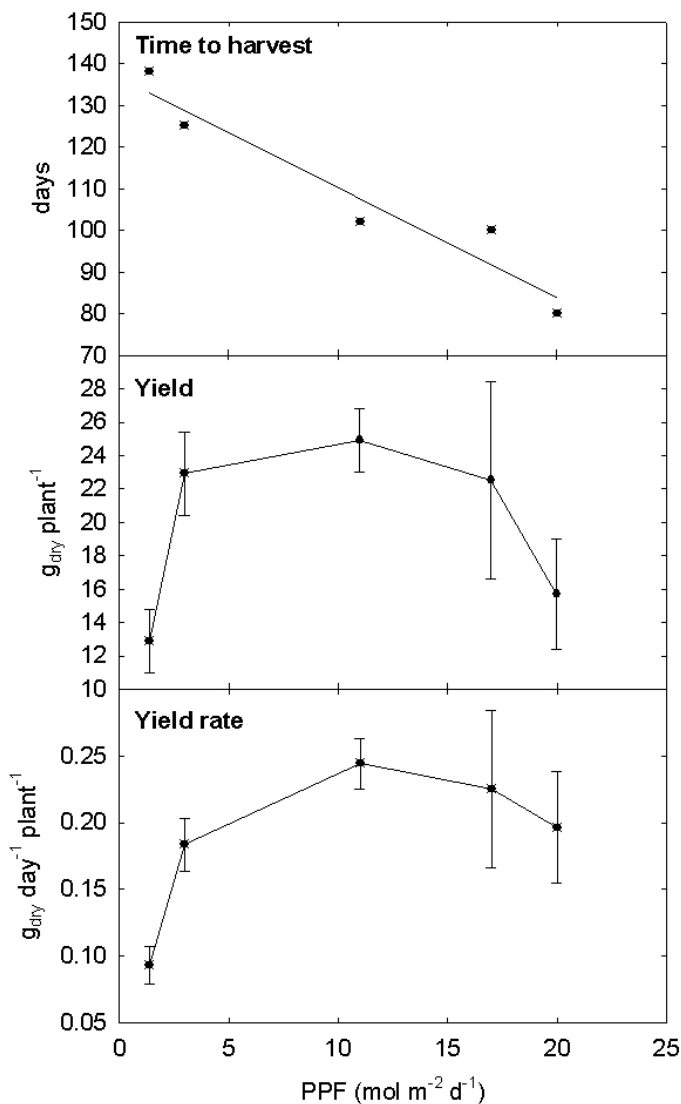
EVALUATION OF 'TRITON' PEPPER IN LOW LIGHT

Jonathan Frantz: slvyt@cc.usu.edu
Julia Nielsen: julian@cc.usu.edu
Bruce Bugbee: bugbee@cc.usu.edu



Yield is proportional to light absorption, but maximum light cannot always be supplied to crops in either space station production settings or in teaching situations. It is therefore important to determine how crops grow in light-limited conditions. 'Triton' pepper was grown in a greenhouse under different amounts of shade cloth to provide approximately 1.5, 3, 11, 17, and 20 mol m⁻² d⁻¹ of light until peppers began to desiccate on the plant.

Time to harvest was influenced by amount of light, with higher light reducing the number of days to harvest. Yield was lowest at the lowest and highest light, but due to reduced time to harvest, yield rate was relatively constant for all but the lowest light level. Harvest index and fruit dry matter was similar for all the light levels.



'Triton' pepper was able to set normal-sized fruit in extremely low light (<50 F mol m⁻² s⁻¹ in 16-h days). Total yield may decrease in high light, but the time to harvest is shortened, so yield rate is the same as in intermediate light levels.