

Fall 2008
Bio. 463

STUDY QUESTIONS FOR:

Long et al. 2006

What are 3 reasons why the results from chamber-based studies may be inadequate for predicting the response of crop yields to increased CO₂ in the future?

Explain why the canopy temperature inside a FACE ring can be higher than the temperature of the canopy outside the ring (see Fig. 1B).

How does the effect of elevated CO₂ and O₃ on crop yield compare when assessed using chamber vs. FACE studies?

What do they you think might account for any differences between the methods? Do they provide an explanation?

How does the response of C₃ crops to elevated CO₂ differ from the response of C₄ crops?

Be able to name at least one example of a C₃ and C₄ crop.

What are the implications of the results reported in this study?