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Concentration of phenolic compounds is increased in lettuce grown under high light intensity and elevated CO_2

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Ambient CO_2
(400 µmol.mol^{-1})
+
Light intensity
(400 PAR)

Blonde of Paris Batavia (Acyanic-green)

Oak leaf (Anthocyanic-red)

Ambient CO_2
(400 µmol.mol^{-1})
+
High light intensity
(700 PAR)

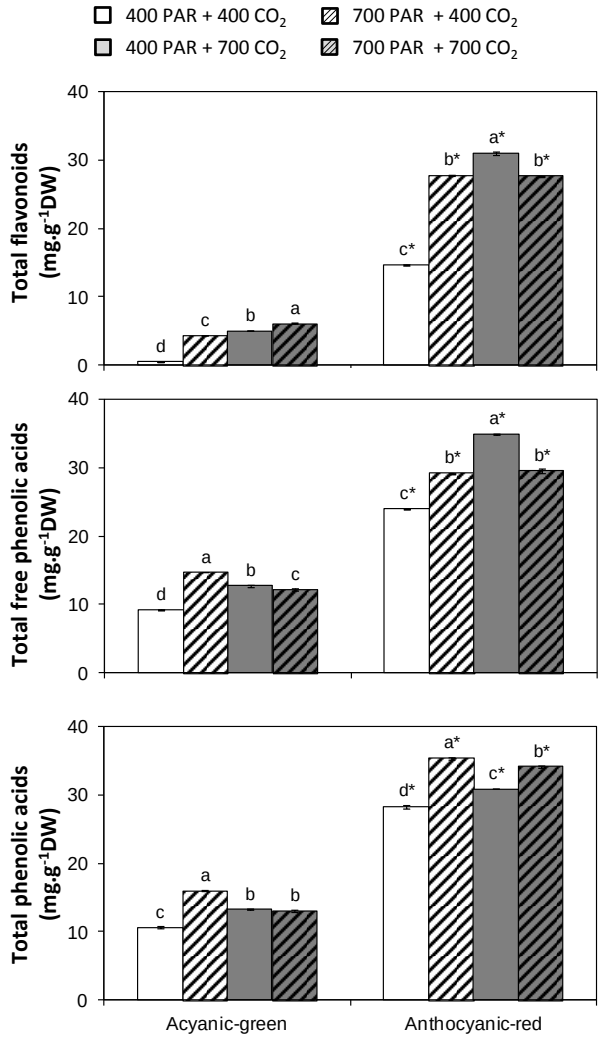
→ **Oxidative stress**

Elevated CO_2
(700 µmol.mol^{-1})
+
Light intensity
(400 PAR)

→ **Extra carbohydrates**

Elevated CO_2
(700 µmol.mol^{-1})
+
High light intensity
(700 PAR)

→ **Lower oxidative stress**



High CO_2 and high light intensity alone or together can improve lettuce quality

Percentage of changes dependent on specific phenolic compounds and pigmentation