

Author: [ADVANCED](#)Volume Page Keyword: 

[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

ONLINE ISSN : 1349-1008

PRINT ISSN : 1343-943X

Plant Production Science

Vol. 12 (2009) , No. 4 428-433

[\[PDF \(537K\)\]](#) [\[References\]](#)

Effects of Excessive Ear Removal on Senescence Order of Wheat Functional Leaves

[Fang Miao](#)¹⁾, [Long Bai](#)¹⁾, [Zhiping Xie](#)¹⁾, [Huadong Du](#)¹⁾, [Cuihong Xu](#)¹⁾ and [Ping Liu](#)¹⁾

1) College of Life Science, Northwest A&F University

(Received: December 2, 2008)

Abstract: We studied the effects of different ear removal treatments on the senescence order of functional leaves and the effects of removal of 3/4 ear on the chlorophyll content, net photosynthetic rate, transpiration rate, stomata conductance, malonaldehyde content and catalase activity in the functional leaves in wheat. The results showed that different ear removal resulted in different frequency of plants with leaf-color inversion (i.e., the green color of both the 2nd and 3rd leaf from the top or only the 2nd leaf was deeper than that of the flag leaf). Removal of 3/4 ear or whole ear, obviously increased the frequency of plants with leaf-color inversion. The chlorophyll content, photosynthetic rate, transpiration rate, stomata conductance and catalase activity in the flag leaf of plants with leaf-color inversion were mostly lower than those in the 2nd and 3rd leaf from the top, but the malonaldehyde content of flag leaf was obviously higher than that of the 2nd and 3rd leaf from the top. The experiments demonstrated that removal of 3/4 ear accelerated the senescence of flag leaf, delayed the senescence of the 2nd and the 3rd leaf from the top and altered the senescence order of wheat functional leaves.

Keywords: [Chlorophyll content](#), [Ear removal](#), [Leaf senescence](#), [Photosynthetic rate](#), [Source/sink](#), [Wheat](#)

[\[PDF \(537K\)\]](#) [\[References\]](#)

Download Meta of Article [\[Help\]](#)

[RIS](#)

[BibTeX](#)

To cite this article:

Fang Miao, Long Bai, Zhiping Xie, Huadong Du, Cuihong Xu and Ping Liu: "Effects of Excessive Ear Removal on Senescence Order of Wheat Functional Leaves". *Plant Production Science*, Vol. **12**, pp.428-433 (2009) .

doi:10.1626/pps.12.428

JOI JST.JSTAGE/pps/12.428

Copyright (c) 2009 by The Crop Science Society of Japan



[Japan Science and Technology Information Aggregator, Electronic](#)

