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### Seasonal Changes in the Photosynthetic Capacity of Japanese Pear

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Seasonal changes in the light-saturated photosynthetic rate (photosy investigated for spur leaves of Japanese pear, using a portable open Preliminary tests demonstrated that the chamber should be ventilate  $\mu\text{mol}\cdot\text{s}^{-1}$ , and the photosynthetic photon flux density should be kept

to evaluate the photosynthetic capacity. Moreover, all the measured before 9:00 a.m., because the photosynthetic rate was found to decrease. The photosynthetic capacity of spur leaves reached maximum (15-20  $\mu\text{mol CO}_2 \text{ m}^{-2} \text{ s}^{-1}$ ) 10 days after flowering, then maintained that level until at, or just before harvest, and then gradually decreased after harvest, and then in October. The seasonal change in the mesophyll conductance was well correlated with the change in photosynthetic capacity. Therefore, it is suggested that the photosynthesis is regulated by mesophyll activity. Our experiments demonstrated that the photosynthetic capacity of spur leaves of Japanese pear is maintained at a high level during the fruit-bearing period.

**Key Words:** [cultivation in a plastic house](#), [fruit load](#), [mesophyll conductance](#), [culture](#)

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