

**Title** Primary study on respiration type of Lingwu Changzao (*Ziziphus jujuba* Mill.)  
**Author** G.D. Zhang, M. Feng, D. Yang, G.H. Liu, X.Y. Yu and W.P. Xu  
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#### **Abstract**

Lingwu Changzao (*Ziziphus jujuba* Mill.) is a local variety of Ningxia, with a good table quality despite its short postharvest life. The respiration rate, the weight change of single fruit during growth development and the fruit water lost after picking, were studied by measuring quiescence-placeding and fruit weight. The results showed that the curve of fruit growth, was a double sigmoid. The first rapid growth phase was very important to determine the fruit yield. When the fruit skin red color changed from crimson to alizarin crimson, the fruit weight was 12 g, that was a key complementarity stage for yield and good quality of fruit. When the fruit skin color changed from jade-green to alizarin crimson, the respiration rate tended to fall during the entire fruit growth. The respiration rate decreased when the fruit skin color changed to baby red, but after the crimson color stage, the respiration rate recurred to its original downtrend. With the increase of single fruit weight, we didn't observe any climacteric respiration and the respiration rate curve showed a characteristic concavity at some stages. The water lost of harvested fruit increased to 5.7% in the third day after picking and the respiration rate decreased continuously to 9.96 mg CO<sub>2</sub>/kg.h. As a result, there was not a phenomenon of climacteric respiration with a double sigmoid growth development curve characteristic of fruit.