

Effect of environmental factors on grape fruitfulness

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The temperature has an important effect on inflorescence primordium formation, and an high positive correlation has been found between mean air temperature and percentage of bud fruitfulness. Formation of inflorescence primordium on cv. Sultana varied from 0 in 20°C to 16 in 35°C .

The light intensity also has an important effect on grape bud fruitfulness, Increasing light intensity caused increasing bud fruitfulness. Some cv. such as Sultana showed bud fruitfulness only on light intensity high than 19.5 Klx.

Photoperiod had no effect on inflorescence induction, but some cultivars produced more inflorescence per bud on long day photoperiod.

Permanent water stress decreased bud fruitfulness. Effect of water stress on bud fruitfulness probably is a part of its common effects on plant growth.