# Apple Bud Stages

**Fig. 1.** Stage 1, 'Silver Tip'.

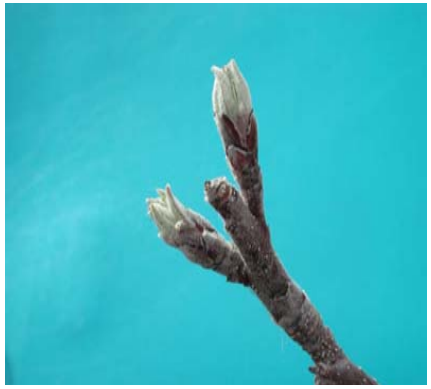

**Fig. 2.** Stage 2, 'Green Tip'.

**Fig. 3.** Stage 3, '1/2 inch Green Tip'.

**Fig. 4.** Stage 4, 'Tight Cluster'.

**Fig. 5.** Stage 5, 'First Pink'.

**Fig. 6.** Stage 6, 'Full Pink'.

**Fig. 7.** Stage 7, 'First Bloom'.

**Fig. 8.** Stage 8, 'Full Bloom'.

Critical temperatures (° F) for apple fruit buds[1].

| Bud Development Stage | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 (post-bloom) |
|---|---|---|---|---|---|---|---|---|---|
| Ave. Temp. for 10% Kill | 15 | 18 | 23 | 27 | 28 | 28 | 28 | 28 | 28 |
| Ave. Temp. for 90% Kill | 2 | 10 | 15 | 21 | 24 | 25 | 25 | 25 | 25 |

[1] For Red Delicious. Critical temperatures prior to petal fall are approx. 1° lower for Golden Delicious and Winesap and approx. 2° lower for Rome Beauty. All varieties are equally tender after petal fall. Temperatures from researchers at Washington St. University's research center, Prosser (1964-76). Mortality is based on 30 minute exposure to the critical temperature given for that level of bud kill. Values are intended for use only as a general guideline of when to begin frost protection efforts. Actual bud kill will vary with the bud stage, cold intensity (temperature), and duration (how long the temperature remains at a given level).

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