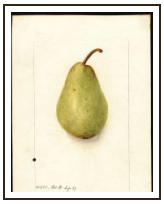
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Pear Frost Damage Chart

Critical spring temperatures by bud stage, from Michigan State University Extension's compilation of the WSU and MSU bulletins.



The temperature that kills 10% and 90% of pear buds after 30 minutes, by bud stage. Buds grow more tender as they open, so the same frost does more harm later in spring.

Bud stage	10% killed	90% killed	Between 90% and 10% killed	Date reached this year
Bud swell	15°F −9°C	0°F −18°C		
Bud burst	20°F −7°C	6°F −14°C		
Tight cluster	24°F −4°C	15°F −9°C		
First white	25°F −4°C	19°F −7°C		
Full white	26°F −3°C	22°F −6°C		
First bloom	27°F −3°C	23°F −5°C		
Full bloom	28°F −2°C	24°F −4°C		
Post bloom	28°F −2°C	24°F −4°C		

0°F 8°F 16°F 24°F 32°F

Reading the chart. At the 10% figure about one bud in ten is killed after 30 minutes of cold; at the 90% figure, about nine in ten. A blank cell (—) means the published table gives no figure for that stage. °C figures are conversions, rounded.

Cold-night log

Date	Low (°F)	Bud stage	What you saw afterwards

Source: Michigan State University Extension compilation of the WSU and MSU critical-temperature bulletins

Data as of 15 Nov 2026