UTAH PESTS fact sheet

UtahState University COOPERATIVE EXTENSION

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Critical Temperatures for Frost Damage on Fruit Trees

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The following table, developed by Washington State University, lists Fahrenheit temperatures for each stage of development at which 10% and 90% bud kill occurs after 30 minutes exposure. The percentage bud kill which causes crop reduction will vary with each crop. For example, to have a full crop of cherries requires well over 50% bud survival in most years, while apples, pears, and peaches may only need 10-15% bud survival.

APPLE

	Silver Tip	Green Tip	Half-Inch Green	Tight Cluster	First Pink (Pink)	Full Pink (Open Cluster)	First Bloom (King Bloom)	Full Bloom and Post-bloom
10%	15	18	23	27	28	28	28	28
90%	2	10	15	21	24	25	25	25

PEAR

	Swollen Bud (Scale Separation)	Bud Burst (Blossom Buds Exposed)	Green Cluster (Tight Cluster)	White Bud (First White, Popcorn)	Full White	First Bloom (King Blossom)	Full Bloom	Petal Fall (Post-bloom)
10%	15	20	24	25	26	27	28	28
90%	0	6	15	19	22	23	24	24

APRICOT







	First Swell (Bud Swell)	Tip Separation (Swollen Bud)	First White	First Bloom	Full Bloom	In the Shuck (Petal Fall)	Shuck Split (Post-bloom)
10%	15	20	24	25	27	27	28
90%	---	0	14	19	22	24	25

CHERRY







SWEET	Swollen Bud (First Swell)	Bud Burst (Green Tip)	Tight Cluster	White Bud (First White, Popcorn)	First Bloom	Full Bloom	Post-bloom
10%	17	25	26	27	28	28	28
90%	5	14	17	24	25	25	25
TART							
10%	15	26	26	28	28	28	
90%	0	22	24	24	24	25	

PEACH NECTARINE







	Swollen Bud (First Swell)	Calyx Green	Quarter-Inch Green (Calyx Red)	Pink (First Pink)	First Bloom	Full Bloom	Post-bloom
10%	18	21	23	25	26	27	28
90%	1	5	9	15	21	24	25

PLUM	Swollen Bud	Side White	Green Tip	Tight Cluster	First White	First Bloom	Full Bloom	Post-bloom
10%	14	17	20	24	26	27	28	28
90%	0	3	7	16	22	23	23	23